

MINE
ACTION
REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2020

*A REPORT BY MINE ACTION REVIEW FOR THE SECOND REVIEW
CONFERENCE OF THE 2008 CONVENTION ON CLUSTER MUNITIONS*

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Other information

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FOREWORD

We welcome this year's *Clearing Cluster Munition Remnants* report and especially the fact that three more States Parties have fulfilled their Treaty obligations for survey and clearance. The record global clearance achieved in 2019 is similarly to be applauded. In the ten years since the entry into force of the Convention on Cluster Munitions (CCM) close to one million submunitions have been destroyed during land release operations. We are making solid progress towards a world free of cluster munition remnants (CMR), even in the most heavily contaminated States.

The main reason for improved programme performance is the evidence-based survey that is being increasingly employed to good effect. High-quality survey enables the effective targeting of clearance and efficient use of resources. Unless we deploy our resources in areas with confirmed contamination, we are not fulfilling the objective of the CCM, ultimately at the expense of affected populations. Every affected State needs a good baseline so it can plan effectively. Lao PDR, the country with more CMR on its territory than any other, is in the process of a nationwide survey that will, for the first time, produce a credible baseline of the massive explosive threat from CMR. Moreover, operators are destroying huge numbers of unexploded submunitions handing precious land back to communities for safe use.

That is not to deny the critical challenges that our sector still faces. The Coronavirus pandemic is impacting the mine action sector, just as it is countless other sectors worldwide. The extent of its impact on survey and clearance operations in 2020 and beyond is unclear. But we do know that the pandemic will make the poor poorer, increasing an already growing inequality. Funding the critical work of survey and clearance may become an even harder task in the years to come. It is a fact that mine action and disarmament save lives and enable development. But we know we are going to have to work harder to make our case and convince donors to remain committed to empower us to free affected countries and territories from the hazardous legacy of CMR and anti-personnel mine contamination.

This year's research has shown, once more, that the sector needs to improve its approach to, and understanding of, diversity. It is time to not only advance gender mainstreaming, but also to achieve measurable progress on diversity. As operational demining organisations, we

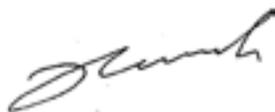
know that this is an essential component of effective mine action. It is key to ensuring that the benefits of mine action employment and deployment accrue to all communities and groups without discrimination, and that we, as a sector, make the greatest possible contribution to peacebuilding.

The First Review Conference of the CCM in 2015 led to clear commitments in the Dubrovnik Action Plan to consider humanitarian and developmental needs during implementation of the Convention. There was never a question about what constituted completion; it was about maximising the positive impact *en route*. Linking mine action and development planning is now, rightly, the norm and must remain central to our work in the decade leading to the culmination of the Sustainable Development Goals in 2030.

The same needs to be true of mine action's links to the environment. It would be a profound mistake to see disarmament and the environment as anything other than interdependent. The mine action community must address its impact on the environment, reducing travel emissions and mitigating any negative impact from operations, while also assessing where mine action can enhance environmental protection and support conservation efforts. The sector should also apply approaches and methods developed for conflict sensitivity to environmental sensitivity, taking bolder and more concrete steps to reduce the unintended environmental consequences of releasing previously contaminated land for safe and productive use.

This Convention has shown that being a State Party brings benefits as it provides support to address the impact of CMR – from clearance through to victim assistance. It has played a role in drawing our organisations, and others, together with this aim. With more than a dozen affected States outside the Convention, there are great benefits in their joining the collective success of the CCM. Let us work together over the next five years and remain bold and committed to make the goal of total global clearance of CMR an ever nearer reality.

As this publication was going to press, information was coming to light of new use of cluster munitions in the Nagorno-Karabakh conflict. We call on all parties to all armed conflicts to refrain from any use of cluster munitions in order to protect civilians as International Humanitarian Law demands.



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CLEARING CLUSTER MUNITION REMNANTS

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KEY FINDINGS

- **In the 10 years** since the entry into force of the Convention on Cluster Munitions (CCM) in 2020, a total of **more than 766 square kilometres** of cluster munition-contaminated area has been cleared. During survey, clearance, and spot task operations nearly **one million unexploded submunitions** have been destroyed. Countless lives and limbs have undoubtedly been saved as a direct result, as well as the broader contribution to development.
- **In 2019 alone**, a global total of more than **130 square kilometres** was cleared of cluster munition remnants (CMR), a new record, beating the previous high (in 2018) by nearly 2km². An impressive number of unexploded submunitions, **more than 132,000**, were destroyed during clearance, survey, and spot tasks in 2019 (slightly less than in 2018). The true total area of clearance is probably considerably greater, given that several States not party have either not reported at all on clearance progress or have done so only partially or inaccurately.
- No State Party completed CMR clearance in 2019, but in 2020, **three States Parties to the CCM—Croatia, Montenegro, and the United Kingdom—fulfilled their Article 4 obligations**, all within their original 10-year treaty deadlines. Croatia and Montenegro both completed clearance of known CMR-contaminated areas and the United Kingdom¹ confirmed that UK bombing data for the Falkland Islands shows there is no evidence that cluster munitions were dropped on the four remaining minefields in Yorke Bay which the United Kingdom is clearing as part of its Article 5 obligations under the Anti-Personnel Mine Ban Convention (APMBC).
- In total, **ten States Parties and one State not party have been declared free of cluster munition-contaminated area in the last 10 years.**² Mauritania, which had reported fulfilment of its Article 4 clearance obligations in 2013, was added back to the list of affected States Parties after discovering cluster munition-contaminated areas in territory under its jurisdiction or control.
- As at 1 October 2020, **25 States and three other areas** were confirmed or suspected to have CMR-contaminated areas under their jurisdiction or control,³ an overall decrease of two States on the previous year. While Croatia, Montenegro, and the United Kingdom were removed from list, Mauritania was added.

Thanks to the progress under the CCM to date, **of the 110 States Parties to the CCM, only ten had cluster munition-contaminated areas to release:** Afghanistan, Bosnia and Herzegovina (BiH), Chad, Chile, Germany, Iraq, Lao PDR, Lebanon, Mauritania, and Somalia.
- Of the ten affected States Parties, only Lao PDR is massively contaminated (defined as covering more than 1,000km² of land), while heavy contamination exists in Iraq (covering more than 100km²). In all other affected States Parties, the extent of contamination is medium or light.
- As in previous years, the highest amount of clearance took place in the world's most CMR-contaminated State, Lao PDR, with more than 45km² of CMR-contaminated area released through clearance (excluding commercial clearance) along with destruction of more than 80,000 submunitions during survey, clearance, and spot tasks. To help put the scale of this clearance achievement into perspective, 45km² is close to three times the size of the city of Geneva. Very significant clearance also occurred in States not party Vietnam and Cambodia.
- No clearance was recorded or reported for 2019 in three States Parties: Chile, Mauritania, and Somalia. While Chile did not clear any CMR contamination in 2019, it did cancel a significant amount of land found not to be contaminated, which marks the first progress in Article 4 implementation since Chile became a State Party to the CCM in 2011. As mentioned previously, Mauritania reported discovering cluster munition-contaminated areas in territory under its jurisdiction or control and planned to investigate the contamination. But again in 2019, Somalia made no progress in survey specific to CMR or clearance of submunitions.

1 The United Kingdom had not considered itself to have an obligation under Article 4 of the CCM and had reported that it considered that it had made every effort to identify all cluster munition-contaminated areas under its jurisdiction or control, prior to becoming a State Party to the CCM. It believes any remaining CMR, if found to exist, to be residual.

2 States Parties: Croatia, Colombia, Rep. of Congo, Grenada, Guinea-Bissau, Montenegro, Mozambique, Norway, United Kingdom (see note 1 above), and Zambia (Zambia completed CMR clearance in June 2010 prior to entry into force of the CCM on 1 August 2010). In addition, State not Party, Thailand, also completed CMR clearance.

3 **Afghanistan**, Angola, Azerbaijan, **BiH**, Cambodia, **Chad**, **Chile**, DR Congo, **Germany**, Georgia, **Iraq**, Iran, *Kosovo*, **Lao PDR**, **Lebanon**, Libya, **Mauritania**, *Nagorno-Karabakh*, Serbia, **Somalia**, South Sudan, Sudan, Syria, Tajikistan, Ukraine, Vietnam, *Western Sahara*, and Yemen. States Parties to the CCM are in bold; signatories are underlined; and other areas are in italics.

- As at 1 October 2020, only two of the ten affected States Parties, Afghanistan and Mauritania, seemed likely to meet their existing treaty deadlines without the need for an extension.

With the exception of the two most heavily contaminated States Parties, Lao PDR and Iraq, the remaining affected States Parties (BiH, Chad, Chile, Germany, Lebanon, and Somalia) should be in a position to fulfil their Article 4 obligations by the Third Review Conference of the CCM in 2025. But it will require strong national ownership, elaboration of concrete action plans, application of efficient land release methodology, and sufficient and sustained funding through to completion.

- In Mine Action Review's assessment of national mine action performance in 2019, two States Parties had demining programmes rated as very good: Croatia and Montenegro, both of which fulfilled their Article 4 obligations in July 2020, within their original treaty deadlines. Four were assessed to be good: Afghanistan, Germany, Lao PDR, and Lebanon. Programmes in BiH and Iraq were ranked Average while in Chad, Chile, and Somalia they were ranked as Poor. Only in BiH did the scorings for 2019 decrease compared to the previous year. The performance of State Party Mauritania has not been scored due to the fact it only reported the discovery of new CMR contamination in 2020.

OVERVIEW

SUMMARY OF PROGRESS

The year 2020 marks the tenth anniversary of the Convention on Cluster Munitions (CCM). Adopted on 30 May 2008, the Convention entered into force as binding international law on 1 August 2010. Its implementation has encompassed sustained action to rid the world of cluster munitions. Mine action programmes over the past decade have cleared a total of more than 766 square kilometres of cluster munition-contaminated area, with the destruction of nearly one million unexploded submunitions. Countless lives and limbs have undoubtedly been saved as a direct result, as well as the broader contribution to development.

Significant progress was achieved in 2019 and the first half of 2020 in clearance of cluster munition-contaminated area and the destruction of cluster munition remnants (CMR). The area cleared in 2019–**130.1km²**—set a new record, beating the previous high (in 2018) by nearly 2km². An impressive number of unexploded submunitions, **more than 132,000**, were destroyed during clearance, survey, and spot tasks in 2019 (slightly less than in 2018). In 2020, three States Parties to the CCM—Croatia, Montenegro, and the United Kingdom—fulfilled their Article 4 obligations, all within their original 10-year treaty deadlines. Croatia and Montenegro both completed clearance of known CMR-contaminated areas and the United Kingdom¹ confirmed that UK bombing data for the Falkland Islands shows there is no evidence that cluster munitions were dropped on the four remaining minefields in Yorke Bay which the United Kingdom is clearing as part of its Article 5 obligations under the Anti-Personnel Mine Ban Convention (APMBC).

In total, ten States Parties and one State not party have been declared free of cluster munition-contaminated area in the last 10 years. Thanks to the progress to date, as at 1 October 2020, of the 110 States Parties to the CCM, only 10 had cluster munition-contaminated areas to release: Afghanistan, Bosnia and Herzegovina (BiH), Chad, Chile, Germany, Iraq, Lao PDR, Lebanon, Mauritania, and Somalia. Aside from Lao PDR, where the extent of contamination is massive and Iraq, where CMR contamination is heavy, the other affected States Parties should all be able to complete clearance within the next five years. Mauritania, which had previously completed CMR clearance in 2013, reported in 2020 that it had discovered further CMR-contaminated areas under its jurisdiction or control.

GLOBAL CMR CONTAMINATION

As at 1 October 2020, 25 States and three other areas were contaminated by CMR globally, as listed in Table 1.

Asia (including the Middle East), is the most affected continent both in terms of the number of affected countries and the extent of the CMR contamination, with 13 CMR-contaminated States. Afghanistan, Iraq, Lebanon, and Lao PDR are all States Parties. Azerbaijan, Cambodia, Georgia, Iran, Libya, Syria, Tajikistan, Vietnam, Yemen are all States not party.

Africa is the second most affected region with seven States and Western Sahara (the Sahrawi Arab Democratic Republic) remaining contaminated with CMR. Chad, Mauritania, and Somalia are all States Parties to the CCM; Angola and the Democratic Republic of Congo are signatories; and South Sudan and Sudan are States not party; along with other area Western Sahara.²

In Europe, four States and Kosovo and Nagorno-Karabakh are still CMR-affected. The two States Parties are BiH and Germany. Affected States not party are Serbia and Ukraine, as well as other areas Kosovo and Nagorno-Karabakh.

In the Americas only one State Party, Chile, remains affected by CMR.

Table 1: Global CMR contamination (at 1 October 2020)

States parties	Signatory states	States not party	Other areas
Afghanistan	Angola	Azerbaijan*	Kosovo
BiH	DR Congo	Cambodia	Nagorno-Karabakh
Chad		Georgia*	Western Sahara
Chile		Iran	
Germany		Libya	
Iraq		Serbia	
Lao PDR		South Sudan	
Lebanon		Sudan	
Mauritania		Syria	
Somalia		Tajikistan	
		Ukraine	
		Vietnam	
		Yemen	
10 states parties	2 signatory states	13 states not party	3 other areas

*Clearance believed complete in areas under government control.

- 1 The United Kingdom had not considered itself to have an obligation under Article 4 of the CCM and had reported that it considered that it had made every effort to identify all cluster munition-contaminated areas under its jurisdiction or control, prior to becoming a State Party to the CCM. It believes any remaining CMR, if found to exist, to be residual.
- 2 The Sahrawi Arab Democratic Republic is considered a State by the African Union but not by the Secretary-General of the United Nations (UN), who is the depositary of the Convention on Cluster Munitions.

Mauritania, which had reported fulfilment of its Article 4 clearance obligations in 2013, was added back to the list of affected States Parties after discovering cluster munition-contaminated areas in territory under its jurisdiction or control. Afghanistan added four previously unrecorded hazardous areas to the database in 2019, more than the amount of cluster munition-contaminated areas released and resulting in a rise in the amount of contamination remaining, but remained on course to meet its Article 4 deadline. In Tajikistan, the national estimate of CMR-contaminated area increased significantly in 2019, up to more than 1.5km².

In late September 2020, hostilities broke out again in Nagorno-Karabakh, between Azerbaijan and Armenia and Armenian-supported forces in Nagorno-Karabakh, with reports that cluster munitions were again being fired into Stepanakert. Amnesty International ascribed the new use to Azerbaijan.³ This raises concerns that significant new CMR contamination could be added to pre-existing contamination in Nagorno Karabakh, in addition to the direct and significant risk to civilians arising from the new use of cluster munitions.

Table 2 summarises what is known or reasonably believed about the extent of contamination in affected States Parties. It is therefore an assessment by Mine Action Review of the extent of CMR contamination based on available evidence, as opposed to the claims of governments or mine action programmes, some of which do not stand up to scrutiny.

Of the ten affected States Parties, only Lao PDR is massively contaminated (defined as covering more than 1,000km² of land), while heavy contamination exists in Iraq (covering more than 100km²). In all other affected States Parties, the extent of contamination is medium or light.

There is no reliable estimate for global CMR contamination, although the total affected area certainly exceeds 2,500km².

Table 2: Extent of CMR-Contaminated Areas in Affected States Parties (at 1 October 2020)

Massive (>1,000km ²)	Heavy (100–1,000km ²)	Medium (5–99km ²)	Light (<5km ²) or extent of contamination unclear
Lao PDR	Iraq	Chile	Afghanistan
		Germany	BiH
		Lebanon	Chad
			Mauritania
			Somalia

STATES THAT HAVE COMPLETED CMR CLEARANCE

In 2020, three States Parties, Croatia, Montenegro, and the United Kingdom fulfilled their Article 4 obligations under the CCM, bringing the total to 10 States Parties and 1 State not party that have completed survey and clearance of CMR-contaminated area in territory under their jurisdiction or control in the last decade. State Party, Zambia, completed CMR clearance in June 2010, ahead of the Convention's entry into force on 1 August 2010, and the remaining States Parties all completed survey and clearance within their original ten-year treaty deadlines (see Table 3).

As noted above, Mauritania has been removed from the list, having newly reported the discovery of CMR-contaminated area in territory under its control in 2020. Four of the States that have fulfilled their Article 4 obligations are from Africa; four are from Europe; two are from the Americas; and one is from Asia –Thailand, the only State not party to have completed CMR clearance on its territory.

Table 3: States Having Completed CMR Clearance Since 2010 (at 1 October 2020)

State	Date of Completion
Croatia	2020
Montenegro	2020
United Kingdom*	2020
Colombia	2017
Mozambique	2016
Norway	2013
Grenada	2012
Republic of Congo	2012
Guinea-Bissau	2012
Thailand**	2011
Zambia***	2010
Total	11 States

* The United Kingdom had not considered itself to have an obligation under Article 4 of the CCM and had reported that it considered that it had already made every effort to identify all cluster munition-contaminated areas under its jurisdiction or control, prior to becoming a State Party to the CCM.

** State not party to the CCM.

*** Completed CMR clearance in June 2010 prior to entry into force of the CCM on 1 August 2010.

3 Amnesty International, "Armenia/Azerbaijan: Civilians must be protected from use of banned cluster bombs", 5 October 2020, at: [bit.ly/30DvCl3](https://www.amnesty.org/en/documents/eur/2020/10/05/).

CMR CLEARANCE IN 2019

In 2019, a total of 130.14km² of CMR-contaminated area was cleared with the destruction of more than 132,000 submunitions (see Table 4). This exceeds the previous year's record clearance output of 128.3km², but with a 2.6 per cent decrease in the total number of submunitions destroyed.

Table 4: CMR Clearance in 2019

States Parties	Area cleared in 2019 (km ²)	Submunitions destroyed*	Comparison to 2018 clearance (+/-km ²)	Comment
Afghanistan	1.65	273	-2.59	
BiH	0.45	85	+0.01	
Chad	0.84*	28*	+0.84	*Based on data provided by Mines Advisory Group (MAG).
Chile	0	0	0	
Croatia	0.05	186	-0.81	CMR subsequently completed in July 2020.
Germany	1.21	1,814	+0.45	
Iraq	4.74*	9,905	-2.45	*Based on Mine Action Review calculation.
Lao PDR	45.77	80,140	+9.57	
Lebanon	1.26	4,037	+0.11	
Mauritania	0	0	N/A	Reported discovery of CMR-contaminated areas in 2020.
Montenegro	0.27	64	+0.25	CMR subsequently completed in July 2020.
Somalia	0	0	0	
Sub-totals (States Parties)	56.24	96,532		
States not party and other areas	Area cleared in 2019 (km ²)	Submunitions destroyed*	Comparison to 2018 clearance (+/-km ²)	Comment
Cambodia	25.23	8,467		
Vietnam	38.54	15,273		
South Sudan	3.29	2,733		
Yemen	3.12*	7,071		*Also includes clearance of mines and other explosive ordnance.
Western Sahara	1.59	923		
Kosovo	1.26	156		
Other programmes	0.87	1,137		
Sub-totals (States not party and other areas)	73.90	35,760		
Grand Totals	130.14	132,292	+1.85	

* Including destruction during spot tasks and survey.

As in previous years, the highest amount of clearance took place in the world's most CMR-contaminated State, Lao PDR, with more than 45km² of CMR-contaminated area released through clearance (excluding commercial clearance) along with destruction of 80,140 submunitions during survey, clearance, and spot tasks. To help put the scale of this clearance achievement into perspective, 45km² is close to three times the size of the city of Geneva in Switzerland. But very significant clearance also occurred in States not party Vietnam and Cambodia. In Vietnam, more than 38km² of CMR-contaminated area was cleared (excluding clearance by Vietnam's military) while in Cambodia the figure was over 25km².

Chad provided an estimate of the size of cluster munition-contaminated areas and reported the first clearance of land containing CMR in five years. In Iraq, land released through survey and clearance dropped in 2019 compared with the previous year. Operators also confirmed 21.6km² of CMR contamination in two governorates.

While Chile did not clear any CMR contamination in 2019, it did cancel a significant amount of land found not to be contaminated, which marks the first progress in Article 4 implementation since Chile became a State Party to the CCM in 2011. But again in 2019, Somalia made no progress in survey specific to CMR or clearance of submunitions. A planned review of survey records in the national database by the Somali Explosive Management Authority (SEMA) was still ongoing as at August 2020.

In fact, though, given that several States not party have either not reported at all on clearance progress or have done so only partially or inaccurately, the global figure is likely higher. Mine Action Review figures are, though, conservative, to avoid exaggerating progress.

That said, in nearly all affected States, the COVID-19 pandemic had been impacting negatively to some degree on mine action programmes in 2020, whether through the mandatory halting of operations under national lockdown rules, reduced operations due to distancing measures in place to help prevent the spread of the virus, difficulties in international staff returning to or visiting mine action programmes due to travel restrictions, or other impacts. Survey and clearance results for the year are therefore likely to evidence a reduction in output, although the extent of the impact is, as yet, unknown and will vary between affected countries. The COVID-19 pandemic has, however, also revealed the adaptability and resilience of the mine action sector, with national authorities, operators, and implementing partners striving to find ways to continue land release operations, training, capacity development and more, whenever possible and where required, remotely.

CMR CLEARANCE IN 2010-19

The CCM was adopted in 2008 and entered into force in 2010. Table 5 summarises progress in clearance of cluster munition-contaminated areas from 1 January 2010 to the end of 2019. In total, the decade saw clearance of more than 767km² with the destruction of nearly one million unexploded submunitions.

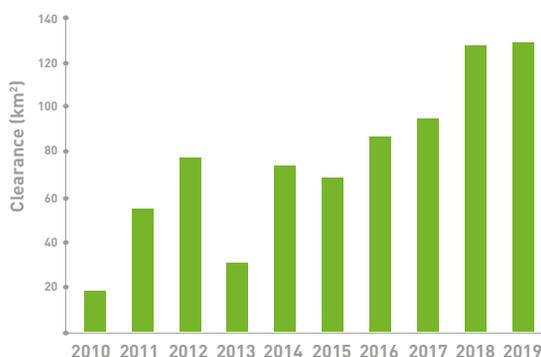
Table 5: CMR Clearance in 2010-19

Year	Clearance (km ²)*	Submunitions destroyed**
2019	130.1	132,292
2018	128.3	135,779
2017	95.4	153,007
2016	87.3	137,544
2015	69.3	120,899
2014	73.9	68,322
2013	30.9	54,781
2012	78.0	59,171
2011	55.0	52,845
2010	18.6	59,978
Totals	766.8	974,618

* Rounded to the nearest decimal place. ** Including destruction during spot tasks and survey.

Figure 1 depicts the evolution of CMR clearance over the course of the decade.

Figure 1: Annual CMR Clearance in 2010 to 2019



PROGRESS IN ARTICLE 4 IMPLEMENTATION

Table 6 summarises the current status of Article 4 implementation. Lao PDR and Germany were each granted a five-year extension to their respective Article 4 deadlines in 2019; the first such extensions to Article 4 deadlines since the Convention entered into force. BiH, Chile, and Lebanon were all seeking to extend their respective clearance deadlines at the Second Review Conference of the CCM in November 2020.

As at 1 October 2020, only two of the ten affected States Parties seemed likely to meet their existing treaty deadlines without the need for an extension. Afghanistan was on track to meet its March 2022 deadline while Mauritania should be able to complete clearance before the expiry of its deadline of 1 August 2022, if the planned assessment of cluster munition-contaminated areas is not too severely delayed by the COVID-19 pandemic. With the exception of the two most heavily contaminated States Parties, Lao PDR and Iraq, the remaining affected States Parties (BiH, Chad, Chile, Germany, Lebanon, and Somalia) should be in a position to fulfil their Article 4 obligations by the Third Review Conference of the CCM in 2025. But it will require strong national ownership, elaboration of concrete action plans, application of efficient land release methodology, and sufficient and sustained funding through to completion.

Table 6: Progress in Implementing Article 4 Obligations

State Party	Article 4 Deadline	Status of progress	Implementation priorities
BiH	1 March 2021	18-month Article 4 deadline extension requested to 1 September 2022	BHMAC should develop an effective evidence-based work plan for the release of all remaining CMR-contaminated areas as soon as possible and no later than 1 September 2022, including the area that is also contaminated with depleted uranium.
Lebanon	1 May 2021	Five-year Article 4 deadline extension requested to 1 May 2026	Lebanon should conduct evidence-based survey prior to clearance, to ensure CMR-contaminated areas are released as efficiently as possible. LMAC should also determine how it plans to address CMR contamination in especially difficult terrain, such as deep and very steep canyons and cliffs.
Chile	1 June 2021	One-year interim Article 4 deadline extension requested to 1 June 2022	Chile should complete the restructuring of its national mine action programme without delay and proceed as soon as possible to conduct technical survey to further clarify the extent of the remaining CMR contamination.
Afghanistan	1 March 2022	On track	Afghanistan should ensure it secures the required funding, if necessary from national sources or alternative donors, in order to maintain progress in survey and clearance and release all known remaining CMR-contaminated areas before its deadline.
Mauritania	1 August 2022	On track	Mauritania should clarify whether the CMR-contaminated areas it has reported are currently under its effective control. If so, and they are also under its jurisdiction, the authorities should proceed to undertake an assessment mission as soon as funding and restrictions regarding COVID-19 permit. If, however, the areas are under its effective control, but not also under its jurisdiction, discussions need to be held as a matter of urgency with others concerned, in particular Morocco and the Saharawi Arab Democratic Republic.
Chad	1 September 2023	Unclear whether on track	Chad should elaborate a completion strategy for Article 4 implementation, together with a clear annual work plan for the survey and clearance of remaining CMR-contaminated areas.
Iraq	1 November 2023	Not on track	Iraq should seek to ensure that it secures sufficient funding and capacity for survey and clearance of CMR to fulfil its Article 4 obligations. The United States and its NATO allies could provide useful support to survey, planning, and clearance by providing data on their cluster munitions strikes in the course of the Gulf Wars.
Germany	1 August 2025	Unclear whether on track	Germany should continue to ensure it deploys adequate demining capacity to meet its annual CMR clearance targets and fulfil its Article 4 obligations before its extended deadline of 1 August 2025.
Lao PDR	1 August 2025	Not on track and will require multiple extensions to its deadline	The National Regulatory Authority should strengthen coordination and prioritisation systems to support the CMR survey and clearance process, including elaboration of annual sector-wide work plan. It should also streamline procedures for issuing, amending, or renewing memoranda of understanding to avoid inefficiencies and excessive delays.
Somalia	1 March 2026	Not on track	Somalia should elaborate a strategic plan for Article 4 implementation, including determining a comprehensive baseline of CMR contamination and mobilising resources to release contaminated areas.

Four States not party to the CCM—Serbia, South Sudan, Sudan, and Tajikistan—should also be able to complete CMR clearance on their respective territories in the next five years, along with other areas Kosovo and Western Sahara.

PROGRAMME PERFORMANCE IN AFFECTED STATES PARTIES

To help affected States Parties and their partners focus their capacity building and technical assistance efforts on areas of weakness, and to improve the efficiency and effectiveness of survey and clearance programmes, a performance scoring system is used by Mine Action Review. The scoring criteria were developed in consultation with the Mine Action Review's Advisory Board Members (The HALO Trust, Mines Advisory Group (MAG), and Norwegian People's Aid (NPA)), and with input from the Geneva International Centre for Humanitarian Demining (GICHD), including the Gender and Mine Action Programme (GMAP).

Mine Action Review assesses mine action programme performance in affected States Parties according to a set of seven core criteria: Understanding of contamination; National ownership and programme management; Gender and diversity; Information management and reporting; Planning and tasking; Land release system; and Land release outputs and Article 4 compliance. In the scoring, additional weighting is accorded to Understanding of contamination; Land release system; and Land release outputs and Article 4 compliance. An average is then calculated that determines the overall score. A score of 8 or more is ranked Very Good. A score of 7.0–7.9 is ranked Good. A score of 5.0–6.9 is ranked Average. A score of 4.0–4.9 is ranked Poor. A score of less than 4 is ranked Very Poor.

The text box on pages 9-10 outlines the seven programme performance criteria and key factors in detail. The results of the scoring for 2019 are summarised in Table 7. The country-specific assessments of the seven criteria, which should be viewed alongside the Recommendations for Action in the country reports, are intended as an implementation tool, offered in the spirit of openness and constructive dialogue, to assist States Parties to identify and overcome challenges and fulfil their Article 4 obligations as efficiently as possible.

Table 7 scores and ranks performance in affected States Parties for 2019.

Two States Parties – Croatia and Montenegro – were ranked as Very Good. Both States fulfilled their Article 4 obligations in July 2020, within their original treaty deadlines. Programmes in Afghanistan, Germany, Lao PDR, and Lebanon were ranked as Good. Programmes in BiH and Iraq were ranked Average while in Chad, Chile, and Somalia they were ranked as Poor. No State Party had a ranking of Very Poor for 2019, whereas in last year's report Chad, Chile, and Somalia were all ranked as Very Poor. Only in BiH did the scorings for 2019 decrease compared to the previous year. The performance of State Party Mauritania has not been scored for 2019, as it only reported discovery of new CMR-contaminated areas in 2020 after previously completing clearance in 2013.

Table 7: Mine Action Programme Performance in Affected States Parties

State Party	Ranking	Score (2019)	Score (2018)	Change in Score
Afghanistan	Good	7.8	7.8	+/- 0
BiH	Average	5.4	5.7	- 0.3
Chad	Poor	4.3	3.3	+ 1.0
Chile	Poor	4.9	3.8	+ 1.1
Croatia	Very Good	8.3	7.8	+ 0.5
Germany	Good	7.2	6.9	+ 0.3
Iraq	Average	5.8	5.3	+ 0.5
Lao PDR	Good	7.1	7.0	+ 0.1
Lebanon	Good	7.5	7.1	+ 0.4
Montenegro	Very Good	8.1	6.6	+ 1.5
Somalia	Poor	4.0	3.9	+ 0.1

Mine Action Review Criteria to Assess National Programme Performance of States Parties to the Convention on Cluster Munitions

Criterion	Key Factors Affecting Scoring
<p>UNDERSTANDING OF CLUSTER MUNITION CONTAMINATION (20% of overall score)</p>	<p>Has a national baseline of cluster munition remnant (CMR) contamination been established and is it up to date and accurate?</p> <p>If no national baseline, or only a partial or inaccurate baseline, exists, is survey and/or re-survey being conducted or is it planned?</p> <p>Are CMR-contaminated areas disaggregated from areas with other types of explosive ordnance (e.g. other explosive remnants of war (ERW) or mines)?</p> <p>Is CMR contamination classified into suspected hazardous areas (SHAs) and confirmed hazardous areas (CHAs), based on whether there is indirect or direct evidence of CMR respectively?</p> <p>Is there a high ratio of CHAs to SHAs?</p>
<p>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)</p>	<p>Is there a national entity, such as a national mine action authority, overseeing mine action?</p> <p>Is there a national mine action centre coordinating operations?</p> <p>Are the roles and responsibilities in mine action clear and coherent within the national programme?</p> <p>Is the mine action centre adequately staffed and skilled?</p> <p>Are clearance operators involved in key decision-making processes?</p> <p>Does national legislation, or other suitable administrative measures, effectively underpin the mine action programme?</p> <p>Have the authorities created an enabling environment for mine action?</p> <p>Has the government facilitated the receipt and efficient use of international assistance?</p> <p>Is there political will for timely and efficient implementation of Article 4 of the Convention on Cluster Munitions (CCM)?</p> <p>Does the affected State contribute national resources to support the cost of the mine action centre and/or survey and clearance of CMR-contaminated areas?</p> <p>Does the affected State have a resource mobilisation strategy in place for Article 4 implementation?</p>
<p>GENDER AND DIVERSITY (10% of overall score)</p>	<p>Does the national mine action programme have a gender policy and implementation plan? Do the main mine action operators have one?</p> <p>Is gender mainstreamed in the national mine action strategy and national mine action standards?</p> <p>Are women and children in communities affected by CMR-contaminated areas consulted during survey and community liaison activities?</p> <p>Are survey and community liaison teams inclusive and gender balanced, to facilitate access and participation by all groups, including women and children?</p> <p>Are the needs of women and children in communities affected by CMR-contaminated areas taken into account in the prioritisation, planning, and tasking of survey and clearance activities?</p> <p>Are ethnic or minority groups in communities affected by CMR-contaminated areas consulted during survey and community liaison activities?</p> <p>Do survey, clearance, and community liaison teams include representatives from different ethnic or minority groups, to facilitate access and participation by all groups?</p> <p>Are the needs of ethnic or minority groups in communities affected by CMR-contaminated areas taken into account in the prioritisation, planning, and tasking of survey and clearance activities?</p> <p>Is relevant mine action data disaggregated by gender and age?</p> <p>Is there equal access to employment for qualified women and men in survey and clearance teams, including for managerial level/supervisory positions?</p>
<p>INFORMATION MANAGEMENT AND REPORTING (10% of overall score)</p>	<p>Is there a national information management system in place (e.g. IMSMA), and is the data accurate and reliable?</p> <p>Are data collection forms consistent and do they enable collection of the necessary data?</p> <p>Is data in the information management system disaggregated by type of contamination and method of land release?</p> <p>Is the data in the information management system accessible to all operators?</p> <p>Are ongoing efforts being made to ensure or improve the quality of data in the mine action database?</p> <p>Does the affected State Party to the CCM submit accurate and timely annual Article 7 reports on Article 4 progress?</p> <p>Are Article 4 extension requests of a high-quality and submitted in a timely manner?</p> <p>Is the survey and clearance data reported by the affected State Party (e.g. in Article 7 reporting) accurate and disaggregated by type of contamination (i.e. CMR from other ERW and landmines) and method of land release?</p> <p>Does the affected State Party report on progress in Article 4 implementation at the Meetings of States Parties and is reporting accurate and consistent between reporting periods?</p>

Criterion	Key Factors Affecting Scoring
PLANNING AND TASKING (10% of overall score)	Is there a national mine action strategy in place and does it include realistic goals for land release? Is there a realistic annual work plan in place for land release? Are there agreed and specified criteria for prioritisation of tasks? Are key stakeholders meaningfully consulted in planning and prioritisation? Is clearance of CMR tasked in accordance with agreed prioritisation? Are task dossiers issued in a timely and effective manner? Where relevant, is there a plan for dealing with residual risk and liability? Is it realistic and sustainable?
LAND RELEASE SYSTEM (20% of overall score)	Does the affected State have national mine action standards in place for land release? Do the standards enable or impede efficient evidence-based survey and clearance? Are national standards reflected in SOPs? Are standards and SOPs periodically reviewed against IMAS and international best practice, in consultation with clearance operators? Is there an effective and efficient: i) non-technical survey capacity, ii) technical survey capacity, iii) clearance capacity in the programme? Does this include national capacity? Are areas being cleared that prove to have no CMR contamination? Where relevant, is there national survey and clearance capacity in place to address CMR contamination discovered after the release of CMR-contaminated areas or post completion? Is there an appropriate range of demining assets (manual, mechanical, and animal detection systems) integrated into land release operations? Is there an effective quality management system in place for survey and clearance operations? Where an accident has occurred within a mine action programme was there an effective investigation? Were lessons learned shared between operators?
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	Is the affected State seeking to clear all CMR from territory under its jurisdiction or control, including along national borders, in and around military installations, and in hard to access areas etc.? Have national mine action authorities set a target date for the completion of CMR clearance and is this within the State Party's Article 4 deadline? Is the target date for completion realistic based on existing capacity? Is the target date sufficiently ambitious? What were the outputs of survey and clearance of CMR-contaminated area in 2019, and were they greater or lesser than the previous year and why? Are survey and clearance outputs in line with plans and Article 4 obligations? Is the affected State on track to meet the target completion date and/or Article 4 deadline?

GENDER AND DIVERSITY

In this year's research, Mine Action Review has seen an improvement in the availability and quality of information on gender provided by national authorities and their implementing partners, compared to last year when we started to ask questions related to the gender sensitivity of mine action programmes for the first time. Furthermore, in this year's assessment of programme performance for 2019, Mine Action Review has also assessed diversity alongside gender, as initially intended. While we have received some information on measures national authorities are taking to consider diversity in mine action programming, the information received on diversity has lagged behind that on gender. It is essential that diversity is also mainstreamed within mine action programmes, alongside gender, especially in CMR-affected countries where conflict has been on ethnic grounds.

Some progress was registered in advancing gender and diversity in CMR clearance programmes. In 2019, MAG employed Chad's first female deminer as a team leader, overseeing survey and clearance tasks, conducting on-site quality control and reporting data. She had been trained in Benin to EOD [Explosive Ordnance Disposal] Level 3. MAG also employed women in community liaison and administrative functions.

Chile has taken steps to mainstream gender across the armed forces with women working at all levels of the mine action programme. However, the number of women employed in demining in 2019 was just 4%. In a positive step, however, Chile stated in its 2020 CCM Article 4 deadline extension request that due to its awareness of the increasing importance of the implementation of gender perspectives in the field of disarmament, the Ministry of National Defense will promote women to the teams that will conduct CMR clearance.

In Iraq, the Directorate for Mine Action (DMA) has had a Gender Unit since 2017. It was led in 2019 by the deputy head of the Planning Department and is said to encourage women to apply for employment in mine action. The UN Mine Action Service (UNMAS) conducted a baseline assessment of the DMA's gender policy and practice in 2019, which concluded it had succeeded in raising awareness of gender both internally and in other government institutions engaged in explosive hazard management. Despite that progress, UNMAS observed challenges remained for recruitment, promotion and involving women in all levels of decision-making. The Iraqi Kurdistan Mine Action Agency is also reported to have established a Gender Committee in 2019 and UNMAS reported developing terms of reference setting out responsibilities and a reporting structure.

In early 2019, Lao PDR finalised a manual for trainers on gender mainstreaming in the UXO Sector. The government also partnered with the Association of South-East Asian Nations (ASEAN) Regional Mine Action Center (ARMAC) to deliver a Regional Workshop on Gender Equality and Empowerment in mine action in October 2019, in Vientiane. Of the 41 employees at the National Regulatory Authority (NRA), 13 (31%) are women. Clearance operators in Lao PDR have gender policies in place, disaggregate mine action data by sex and age, and consult with women and girls during survey and clearance operations.

In Lebanon, the Lebanon Mine Action Centre (LMAC) has taken action to mainstream gender in its mine action programme, including through data disaggregation, inclusive survey, and participation in courses at its regional demining school. Gender and diversity considerations are included in the National Mine Action Strategy 2020–25 and LMAC has appointed a new gender focal point who will help mainstream gender-sensitive policies and procedures, and monitor their implementation, in the mine action centre. LMAC acknowledges in the strategy that mine action “is a male-dominated environment and we have therefore a particular responsibility to empower women and ensure that we have a gender sensitive approach to our work”.

But in other affected States Parties, progress remains extremely challenging. In Afghanistan, while women are hired in community liaison and risk education, only one operator has employed women in clearance and recruitment of women in Afghanistan's deeply conservative society continues to be limited. The Directorate of Mine Action Coordination (DMAC) employed only four women among its staff of 194 as at the middle of 2019. That said, the mine action programme has had a policy of including gender in mine action since 2014 and set gender mainstreaming as one of four goals of its 2016–20 strategic plan.

In BiH, where the legal description for gender equality in employment is a minimum of 40% women, of the national mine action centre (BHMACH) 171 employees, only 42 (25%) were women. Of its 107 operations staff in the field, only 10 (9%) were women. In a welcome development, however, two of the three members of the newly appointed Demining Commission are women. The Civil Protection Administration of Republika Srpska reported that nearly 22% of its staff were female, including 20% of managerial/supervisory positions, but this was the case in only 5% of operational roles. Problems extend to international non-governmental organisation (NGO) operators. NPA reported that the overall gender split of its staff as at March 2020 was 118 men and 10 women, which represents only 8% female staff. Of its 82 operational staff deployed in the field, three medic positions and one community liaison position are held by women. NPA explained that it rarely received applications from women for vacant operational roles.

In Germany, there is equal access to employment for qualified women and men for EOD clearance, but women only make up a small proportion of the sector, especially in terms of the number of qualified female EOD technicians with a licence for commercial EOD, who reportedly number fewer than 10. This has in turn limited the number of women employed in Germany's CMR clearance operations at the former Soviet military training area at Wittstock.

Somalia's National Mine Action Strategic Plan 2018–2020 recognises gender and diversity as cross-cutting issues for the national mine action programme. The Plan recognises the importance of conducting context analyses in areas of mine action operations to clarify important gender and diversity issues, such as clan affiliation, movement patterns of local populations, and barriers to participation for different gender and age groups. But SEMA informed Mine Action Review that it does not have an internal gender or diversity policy or implementation plan. This is a significant gap that should be filled, with the support of SEMA's UN and NGO partners.

TEN YEARS OF THE CCM: KEY DEVELOPMENTS AND LESSONS

EVIDENCE-BASED LAND RELEASE METHODOLOGY

Unexploded submunitions, the mainstay of the CMR threat, are located in cluster munition strike zones. Such contamination, whether delivered by ground-based systems or from the air, has a footprint (the area covered by the submunitions when they hit the ground). The size of a footprint from one cluster munition strike depends on a range of factors (e.g. the type and age of the cluster munition used, the method of delivery, soil conditions, vegetation, and terrain fluctuations), but normally does not exceed a length of 300 metres and a width of 200 metres.

The survey of cluster munition-contaminated area is usually simpler than is the case for mined area. Where, for example, it is known that no mines are present, surveyors are typically allowed to enter the suspected area with detectors to search for unexploded submunitions. Moreover, unlike mines, all submunitions contain a high amount of metal, making their detection more straightforward, with fewer false positive signals. Informal or emergency clearance without careful recording of individual submunitions that have been removed may, though, distort the footprint. Multiple overlapping footprints may impede accurate identification of each of the footprints. Bombing data have proven fairly accurate in some contexts but less accurate or even non-existent in others.

Clearance should only be conducted where there is direct evidence of cluster munition remnants. A set fade-out distance is cleared outwards from each submunition found. Unexploded submunitions should generally be destroyed *in situ*.

Since the adoption of the CCM, methodology for the survey and clearance of CMR has significantly improved. The scale and nature of cluster munition contamination in South-East Asia, which dates back decades, necessitated a more systematic evidence-based survey response that confirms contamination based on direct evidence. A specific methodology for identifying and confirming CMR was developed, known as Cluster Munition Remnants Survey (CMRS). CMRS is the application of all reasonable effort, through non-technical survey and technical survey procedures, to identify and define confirmed hazardous areas (CHAs), based on direct evidence of CMR contamination. CMRS results in a more accurate understanding of the scale of contamination and the time and resources required for clearance. Based on this data, authorities and operators are able to make more informed decisions when planning for and prioritising clearance operations.

Since it was first introduced in South-East Asia in 2008, the CMRS process has, and continues to be, improved by sharing successes and challenges in implementation and discussing lessons learned. CMRS is being employed in Cambodia, Lao PDR, and Vietnam. A modified form has, more recently, been employed also in Iraq, Kosovo, and Tajikistan. In August 2019, a regional workshop on CMRS took place in Vietnam, convened by the US Department of State, facilitated by NPA, and attended by national authorities and operators from Cambodia, Lao PDR, and Vietnam, as well as by GICHD. The workshop helped to identify, develop, and share best practice in South-East Asia.

INFORMATION MANAGEMENT

The Information Management System for Mine Action (IMSMA) has become the *de facto* standard database for mine action programmes. Of the 10 affected States Parties with Article 4 obligations, eight use IMSMA. Of the remainder, BiH is in the process of migrating from its own information management system to IMSMA Core while Germany uses its own information management system to record the special distribution of CMR, including use of a Geographic Information System (GIS). Afghanistan and Lebanon are both in the process of upgrading from IMSMA New Generation (NG) to IMSMA Core. Lao PDR has introduced IMSMA VPN, which is now used by all international clearance operators, and has helped improve the accessibility of data and the speed and quality of data entry and the reporting process. A sophisticated database does not, though, mean that the data it contains are accurate and up to date. Accordingly, in many affected States Parties, efforts are ongoing to correct historical data and address missing records.

The importance of ensuring a high-quality information management database is essential both for effective planning and prioritisation of survey and clearance operations and also for managing residual risk post-completion or after CMR-contaminated areas have been released through survey or clearance (see 'Residual Risk and its Management' below).

In keeping with their legal obligations under the CCM, all 10 affected States Parties submitted Article 7 transparency reports in 2020, covering 2019, although several contained

inaccuracies or inconsistencies. Either this was due to different figures to those provided to Mine Action Review or as a result of errors and inconsistencies within the Article 7 report itself. The quality of land release reporting under Article 7 is not facilitated by the format of the CCM reporting template, which could be improved. Proposed plans to review and update the Article 7 template during the United Kingdom's presidency of the Tenth Meeting of States Parties are welcome.

In this year's Article 7 reporting, covering 2019, Chad failed to clearly distinguish between CMR and other explosive ordnance when reporting CMR survey and clearance. BiH, Lao PDR, and Lebanon, did not disaggregate the CMR-contaminated area released through technical survey from that released through clearance, as best practice requires. Germany again reported cumulative CMR clearance output to date, rather than the annual clearance output for the year, as the Convention requires. In reporting their baseline of CMR contamination, several affected States Parties do not report suspected hazardous areas and (SHAs) and CHAs in a manner consistent with IMAS.

As in previous years, Mine Action Review continued to see disparities between the 2019 land release data reported by national authorities and data reported by clearance operators directly. In some cases, such as in Iraq, the discrepancies were significant.

RESIDUAL RISK AND ITS MANAGEMENT

Article 4 obligations are fulfilled when an affected State Party has completed clearance of all confirmed and suspected CMR-contaminated areas under its jurisdiction or control. However, this does not mean that every submunition (much less every item of unexploded or abandoned explosive ordnance) has been found and destroyed. In States that were once heavily contaminated, munitions will be found after completion has been declared. Affected States must plan for this and establish sustainable, long-term national capacity to address contamination discovered post completion, and this must be commenced well in advance of completion. Clearance depths need to be set that are appropriate to the context and should also be recorded in information management databases for future reference. But changes in land use mean that submunitions may still be discovered deeper than the stipulated national clearance depth in some instances.

Thus, the majority of States Parties with Article 4 obligations should already be taking measures to plan for capacity to address residual risk, assessing where such capacity is best placed (be it with the armed forces, police, or civil protection, or another appropriate entity). Failure to do so could result in significant cost, such as unnecessarily requiring international clearance operators to address what should be dealt with nationally and creating a problem which is both predictable and avoidable.

Equally important is consideration of where the information management database will be housed, ensuring that when CMR are discovered post completion or on land which has been released through survey or clearance, it is possible to see what, if any, operations have been conducted on the location in question.

INTERNATIONAL MINE ACTION STANDARDS (IMAS)

The International Mine Action Standards have ensured that demining programmes can attain an acceptable standard of competence, efficiency, and safety. These standards, which have been developed collaboratively, continue to evolve, and promote minimum good practice – most recently in Minimum Data Requirements – which are an appendix to the IMAS on Information Management.⁴

Fenix Insight, a UK-based mine action company, has developed a valuable online repository for IMAS. All of the normative references in the IMAS (“shall”, “should”, and “may”) have been incorporated in a searchable database at <https://mineaction.net>. The IMAS serve as an invaluable tool for helping national authorities develop their own national mine action standards (NMAS) and standing operating procedures (SOPs) and Fenix’s online repository makes the IMAS more accessible than ever, providing a valuable tool for the mine action sector.

COUNTRY COALITIONS AND OTHER COUNTRY-FOCUSED APPROACHES

Since the First CCM Review Conference in 2015, there has been a growing appreciation of the importance of adopting a country-focused approach to Article 4 implementation. In 2017, Germany launched the concept of the Country Coalition during its presidency of the CCM Seventh Meeting of States Parties.

Country-focused initiatives enable national authorities and implementing partners in-country to collectively and constructively discuss local progress and challenges to Article 4 implementation. Regular in-country workshops that bring together relevant stakeholders and present progress reports and updates on Article 4 implementation can help improve coordination and demonstrate strong national ownership and political commitment to completion. There is a common misconception that such forums already exist in most affected States Parties; they do not. Whether called “Country Coalitions”, as promoted under the CCM, or “National Mine Action Platforms” (NMAPs), as promoted under the APMBC, such forums should be established in affected States Parties wherever there are multiple land release actors.

A “Mine Action Forum” has been established in Lebanon in close partnership between the Lebanon Mine Action Centre (LMAC) and Norway, providing an informal platform for LMAC to pursue dialogue and collaboration with donors, clearance operators, and partner organisations, and to discuss

priorities and needs in cluster munition and mine survey and clearance at the national level. It is an example of a Country Coalition, but in the case of Lebanon it was agreed the forum should be broadened to include landmines, and not just focus on CMR. The GICHD facilitated the initial Mine Action Forum workshops and the forum now meets twice a year, with the United Nations Development Programme (UNDP) designated as the secretariat to follow up and develop progress reports between meetings. The Lebanon model is worth considering by other CMR-contaminated States.

Fulfilment of Montenegro’s Article 4 obligations was facilitated by the creation of a Country Coalition in 2018, between Montenegro, Norway (as the lead support State/donor), and NPA as the implementing partner. This Coalition provided an excellent forum in which to effectively plan for completion of clearance by Montenegro’s 1 August 2020 Article 4 deadline. The approach included establishment of a joint working group to support the planning and prioritisation of CMR tasks; a clear division of roles and responsibilities; transparent discussions and sense of common ownership; and an enabling environment for mine action. NPA supported the capacity development of the national authorities through refresher training on destruction of BLU-97 and MK118 Rockeye submunitions, and the development of new SOPs for both non-technical and technical survey.

4 IMAS 05:10 on Information Management for Mine Action, IMAS, available at: bit.ly/3bRG1aP.

THE SECOND CCM REVIEW CONFERENCE

The Second CCM Review Conference in Lausanne in November 2020 is expected to adopt an Action Plan to guide the work of the States Parties for the coming five years. Fulfilling the obligations in Article 4 will be high on the agenda. The Conference will need to consider extension requests by BiH (which has requested an eighteen-month deadline extension to 1 September 2022), Chile (a one-year interim request to enable necessary technical survey to occur) and by Lebanon. Lebanon has requested a five-year extension, and in line with its new national mine action strategy, now aims to complete clearance by the end of 2025.

Synergies between implementation of Article 4 of the CCM and Article 5 of the APMBBC are numerous. The APMBBC's Oslo Action Plan benefitted from drawing many of the positive developments in the Dubrovnik Action Plan adopted at the CCM's First Review Conference. In a similar way, the Lausanne Action Plan has drawn on the developments reflected in the Oslo Action Plan.

As at 1 October 2020, all but three of the 110 States Parties to the CCM (Cuba, Lao PDR, and Lebanon) are also States Parties to the APMBBC. Of the 10 CCM States Parties which have CMR-contaminated areas and thus Article 4 obligations, all but two (Chile, which completed anti-personnel clearance in February 2020, and Germany) also have anti-personnel mine contamination. States contaminated by both mines and CMR typically address this under a single national mine action programme, with one combined national strategic plan, set of national standards, and information management database. There is typically one group of donor stakeholders and organisations undertaking land release.

The effective implementation of the two disarmament treaties is thus best served by ensuring coherence between action plans and initiatives such as the CCM Country Coalition or the APMBBC National Mine Action Platform. In this way, priorities can be set in accordance with established humanitarian and development criteria. Both treaties can and should be implemented at the same time, in harmony not dissonance.

STATES PARTIES

The background of the page is composed of several overlapping, semi-transparent geometric shapes in various shades of green, ranging from a light lime green to a dark forest green. These shapes create a dynamic, layered effect, with some appearing as large triangles and others as diagonal bands or trapezoids. The overall composition is modern and minimalist.

AFGHANISTAN



CLEARING CLUSTER MUNITION REMNANTS 2020

ARTICLE 4 DEADLINE: 1 MARCH 2022
ON TRACK TO MEET DEADLINE

KEY DATA

CLUSTER MUNITION CONTAMINATION: LIGHT

NATIONAL ESTIMATE

5.8 km²

SUBMUNITION CLEARANCE IN 2019

1.65 km²

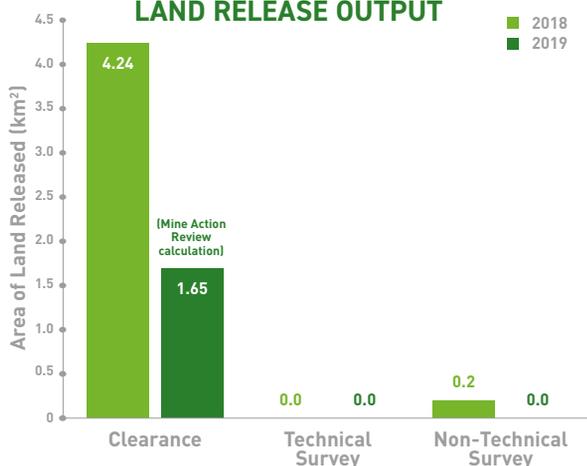
(MINE ACTION REVIEW CALCULATION)

SUBMUNITIONS DESTROYED IN 2019

273

(INCLUDING 187 THROUGH SPOT TASKS)

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Afghanistan added four previously unrecorded cluster munition hazards to the database in 2019, more than the amount of cluster munition-contaminated areas released and resulting in a rise in the amount of contamination remaining. Clearance dropped significantly in 2019 from the previous year's level, attributed by the Directorate of Mine Action (DMAC) to funding constraints.

RECOMMENDATIONS FOR ACTION

- Afghanistan should ensure funding, if necessary from national sources or alternative donors, to achieve the earliest possible completion of cluster munition remnants (CMR) clearance and fulfilment of Article 4 before its deadline.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2019)	Score (2018)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	9	9	Afghanistan has a small amount of known cluster munition-contaminated area to clear to fulfil its Article 4 obligations although it continues to identify previously unrecorded hazards, underscoring the possibility further areas for clearance will emerge over time.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	8	8	The Mine Action Programme of Afghanistan (MAPA) is nationally managed but most DMAC salaries and operations are funded by international donors and CMR clearance has been funded by one donor, the United States.
GENDER AND DIVERSITY (10% of overall score)	6	6	DMAC is committed to mainstreaming gender which features in the 2016–20 strategic plan but national operators have made slow progress putting the plan into practice. While women are hired in community liaison and risk education as well as administrative positions, only one operator has employed women in clearance and recruitment of women in Afghanistan's deeply conservative society continues to be limited. Mixed-gender explosive ordnance risk education (EORE) and survey teams are, however, working across the country.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	8	8	DMAC has an Information Management System for Mine Action (IMSMA) New Generation database and is preparing to upgrade to IMSMA Core with support from the Geneva International Centre for Humanitarian Demining (GICHD). Operators say DMAC's data entry can be slow but it provides a range of reports and extensive disaggregated information. Afghanistan routinely submits comprehensive Article 7 transparency reports, though often late.
PLANNING AND TASKING (10% of overall score)	8	8	DMAC's national work plan for 2020 provided for clearance of all remaining seven cluster munition-contaminated areas, subject to availability of funding and access to tasks in conflict-affected areas. Two hazardous areas added in 2020 might also be cleared in 2020 depending on funding. DMAC remains confident of completing clearance by late 2021.
LAND RELEASE SYSTEM (20% of overall score)	7	7	The MAPA has national mine action standards in Dari and English that are subject to regular review. CMR survey and clearance are addressed in AMAS 06.02 (Battle Area Clearance).
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	8	8	The amount of cluster munition-contaminated area released in 2019 dropped by one third compared to the previous year, which DMAC attributed to lower funding. But it remains confident of completing clearance by October 2021, several months ahead of its Article 4 deadline of 1 March 2022.
Average Score	7.8	7.8	Overall Programme Performance: GOOD

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- Afghanistan National Disaster Management Authority (ANDMA)
- Directorate of Mine Action Coordination (DMAC)

NATIONAL OPERATORS

- Afghan Technical Consultants (ATC)
- Agency for Rehabilitation and Energy Conservation in Afghanistan (AREA)
- Demining Agency for Afghanistan (DAFA)
- Mine Clearance Planning Agency (MCPA)
- Mine Detection Centre
- Organisation for Mine Clearance and Afghan Rehabilitation (OMAR)

INTERNATIONAL OPERATORS

- Danish Demining Group (DDG)
- The HALO Trust
- Swiss Foundation for Mine Action (FSD)

OTHER ACTORS

- United Nations Mine Action Service (UNMAS)
- Norwegian People's Aid (NPA)

UNDERSTANDING OF CMR CONTAMINATION

Afghanistan had more area affected by cluster munition remnants (CMR) at the end of 2019 than a year earlier after non-technical survey resulted in the addition to the database of four hazardous areas in eastern areas covering almost 3.26km². This raised the estimate of total CMR contamination to seven areas affecting more than 5.8km² (see Table 1), 41% more area than at the end of 2018.¹ DMAC added two more CMR-contaminated areas in Nangahar province to the database in June 2020. These two confirmed hazardous areas (CHAs) covered a total of 1.67km².²

Table 1: Cluster munition-contaminated area (at end 2019)

Province	District	CHAs	Area (m ²)
Nangarhar	Pachier Agam	3	2,559,660
Paktia	Zurmat	4	3,259,627
Totals		7	5,819,287

The additions in 2019 and 2020 point to the continuing possibility survey will reveal additional previously unrecorded contamination. DMAC reported assigning a survey team to check reports of suspected hazardous areas (SHAs) in remote parts of Panjshir province.³

All remaining CHAs are said to contain remnants of the 1,228 cluster munitions containing some 248,056 BLU-97B submunitions dropped by the United States between October 2001 and early 2002.⁴ Operators conducting demining and battle area clearance tasks also report encountering scattered Soviet-era cluster munitions dropped during the decade-long war in the 1980s.⁵

CMR make up only a small part of Afghanistan's extensive explosive remnants of war (ERW) contamination, which includes a wide range of other unexploded ordnance (UXO). There are also hundreds of square kilometres of anti-personnel and anti-vehicle mine contamination, including mines of an improvised nature (see Mine Action Review's *Clearing the Mines 2020* report on Afghanistan for further information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Mine Action Programme of Afghanistan (MAPA), originally established in 1989, is led by DMAC, which comes under the Afghanistan National Disaster Management Authority. DMAC fulfils the role of a national mine action centre. From its headquarters in Kabul and seven regional offices, DMAC manages and coordinates the work of national and international implementing partners.

DMAC provides strategic planning and annual work plans, sets priorities and standards, accredits operators, conducts quality assurance (QA) and quality control (QC), manages the mine action database, and conducts resource mobilisation. It coordinates closely with operators through technical working groups that address planning and priority setting, survey, mechanical clearance, risk education and victim assistance. In 2018, it set up a separate technical working group to deal with AIMS.⁶

The MAPA is nationally managed but in 2019 remained almost entirely internationally funded. Since 2012, it has transitioned from being a project of the United Nations Mine Action Service (UNMAS) to national management, a process formally completed with the transfer of the last positions from UNMAS to DMAC in June 2018. The government paid salaries of 13 members of DMAC's total staff of 144 people. Most of the remainder are paid by UNMAS and a small number (27) by the international Voluntary Trust Fund (VTF).⁷ The government earmarked a payment of AFS20 million (approximately US\$250,000) for a humanitarian mine clearance project for the first time in 2019 but lengthy bureaucratic procedures meant the funding was not received until 2020.⁸ The government pledged additional funding of about US\$500,000 in 2020 for demining operations in Nangahar province's Achin district.⁹

UNMAS continued to support DMAC in 2019 employing 32 national and 3 international staff in 2019 providing technical advice, training, and capacity building. It expected to add two more international and one national staff in 2020. It also remained a major channel of funding, providing US\$17.4 million to the MAPA through the VTF for projects including survey, clearance, quality assurance, and risk education.¹⁰

GENDER AND DIVERSITY

The MAPA has had a policy of including gender in mine action since 2014 and set gender mainstreaming as one of four goals of its 2016–20 strategic plan. It states that “achievable targets, reflecting prevailing circumstances and conditions, will be adopted to support and encourage progress wherever possible.”¹¹

Progress in promoting gender and diversity, however, appears to be slow. DMAC employed only four women among its staff of 194 as of the middle of 2019 while the MAPA employed only 167 women out of a total workforce of 6,772.¹² Women work in operational as well as administrative roles but employing women in field operations in particular remains challenging in Afghanistan’s deeply conservative society. Female deminers were employed for the first time in 2018 but operate in only one province, Bamyan. Mixed-gender explosive ordnance risk education (EORE) and survey teams are, however, working across the country.

The gender strategy and Afghanistan’s national mine action standards (AMAS) for community liaison underscore the importance of including women and girls as well as boys and men in non-technical survey, and pre- and post-clearance impact assessments and for equal access to employment for women. The strategy called for implementing partners (IPs) to identify forums in which to access under-represented groups, including women and girls, and to ensure data collection and reporting was disaggregated for gender and age.¹³ The AMAS also refer to the importance of consulting representatives of different groups, such as tribal and religious leaders.¹⁴ EORE teams are required to include a female and male trainer.¹⁵

DMAC has a technical working group on gender and diversity working with IPs to promote implementation. DMAC’s review of IP project proposals also ensures gender issues are considered in operational planning. It operates a hotline taking calls from affected communities which it said also allows interests of minorities to be taken into account.¹⁶

INFORMATION MANAGEMENT AND REPORTING

DMAC operates an Information Management System for Mine Action (IMSMA) New Generation database (IMSMA NG) database and continued working with the Geneva International Centre for Humanitarian Demining (GICHD) in 2019 on cleaning up data as well as preparing to upgrade the database to IMSMA Core. DMAC expected the transfer to be completed in 2021.¹⁷ DMAC also worked with the GICHD on installing the Mine Action Reporting System (MARS), a mobile system designed for data entry in the field. DMAC conducted two workshops with UNMAS and IPs to introduce the system, which was due to go into service after IPs completed field testing in 2020. DMAC had planned to introduce a cloud-based data warehouse in 2020 but reported the project was delayed by the COVID-19 pandemic.¹⁸

Afghanistan submits comprehensive Article 7 reports annually and DMAC’s information department produces a range of monthly, quarterly, and annual reports as well as reports on request and maps.¹⁹ DMAC also holds monthly data coordination meetings which IPs said had resulted in improvements, but that entry of survey and clearance data continued to be slow because of a shortage of trained information management staff in DMAC.

PLANNING AND TASKING

DMAC’s strategic plan for 2016–20 sets out four basic aims²⁰ but identifies mine clearance as an “overarching goal”. Afghanistan’s Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request, drawn up with participation of implementing partners, foresaw completion of clearance of all known mine and ERW contamination by the requested Article 5 deadline of 2023 and this remains a benchmark against which DMAC measures progress.

DMAC also sets annual work plan with more specific targets determined by a matrix of indicators that takes account of civilian incidents, blockages caused by contamination, proximity to communities, and device types. For Afghan year 1398 (1 April 2019–30 March 2020), they included building capacity for tackling abandoned improvised mines, strengthening the quality management system, setting up a research and development unit to explore the application of new technologies, investigating new tools and methods for survey, finalising a policy on liability, and setting up a database to record details of all trained deminers.²¹ A shortfall in donor funding and insecurity ensures Afghanistan will not meet its APMBC Article 5 deadline but DMAC still aims to complete CMR clearance within its CCM Article 4 deadline.²²

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Afghanistan has comprehensive national mine action standards that are International Mine Action Standard (IMAS)-compatible and subject to regular review. CMR survey and clearance are addressed in AMAS 06.02 (Battle Area Clearance).²³

OPERATORS AND OPERATIONAL TOOLS

Two national IPs cleared CMR in 2019. Demining Agency for Afghanistan (DAFA) conducted five of the six tasks during the year and Afghan Technical Consultants (ATC) the other.²⁴ Most operators tackle some residual CMR in the course of clearing mined and battle areas.

Only manual clearance of CMR is conducted in Afghanistan.

DEMINER SAFETY

No accidents occurred during cluster munition clearance in 2019 but insecurity continued to pose a major threat to the sector and blocked access to many areas. The MAPA reported 22 security incidents in 2019 in the course of which three deminers were killed and a fourth was injured. DMAC said the three deminers who died were killed in an airstrike while working on their land. Fourteen deminers were abducted as part of extortion attempts by armed groups but later released unharmed after negotiations by community elders.²⁵

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2019

Afghanistan released 2.72km² of cluster munition-contaminated area in 2019, all of it through clearance.²⁶ However, of the 2.72km² cleared, Mine Action Review considered 1.65km² to be CMR clearance and 1.07km² to be clearance of other ERW.

SURVEY IN 2019

No cluster munition-contaminated area was cancelled or reduced through survey in 2019. Instead, non-technical survey identified four hazardous areas in the remote north-eastern areas covering a total of 3,259,627m².²⁷

CLEARANCE IN 2019

Although DMAC reported a total of 2.72km² for 2019, Mine Action Review does not consider the 1km² of clearance by DAFA in Nangarhar province as CMR clearance but as clearance of other ERW since only two submunitions were destroyed among total destruction of 1,207 items of unexploded ordnance. The 1.65km² considered by Mine Action Review as CMR clearance in 2019 was therefore a significant drop on the 4.24km² cleared the previous year, a decline that DMAC attributed to reduced funding. The 5.82km² of clearance recorded in Afghanistan's initial Article 7 Report (covering 2019)²⁸ represented the total area of tasks completed in 2019, including some started in 2018, and included area cleared in the previous year.²⁹

Contamination on the six tasks tackled in 2019, resulted in clearance of 86 submunitions, compared with 217 destroyed in 2018. Another 187 remnants were destroyed in spot tasks, three times the number destroyed in spot tasks in 2018.³⁰

Table 2: CMR clearance in 2019 (as reported by DMAC)³¹

Operator	Province	Areas cleared	Total subsurface clearance (m ²)	Submunitions destroyed	UXO destroyed
ATC	Takhar	1	160,655	3	81
DAFA	Nangarhar	1	1,072,230	2	1,205
DAFA	Takhar	4	1,488,370	81	210
Totals		6	2,721,255	86	1,496

UXO = unexploded ordnance other than submunitions

ARTICLE 4 DEADLINE AND COMPLIANCE



Afghanistan had more cluster munition-contaminated area to clear at the start of 2020 than a year earlier following the addition of four hazards to the database in 2019 bringing the total to seven. DMAC added two more CHAs totalling 1.67km² in June 2020. DMAC said it had received pledges of funding from the United States for clearance of CHAs in Paktia and from UNMAS for clearance of the CHAs in Nangahar.³² As a result, DMAC remained confident that Afghanistan would meet its March 2022 Article 4 deadline and set a target of completing clearance by the end of October 2021.³³

The main question marks over achieving that goal remained funding and security. Afghanistan reported the United States had agreed to fund clearance of the seven remaining cluster munition-contaminated areas during 2020.³⁴ It also expressed the hope that peace negotiations between the government and Taliban would help to facilitate access to cluster munition hazards in areas of conflict.

Table 3: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2019	1.65
2018	4.24
2017	2.89
2016	0
2015	0
Total	8.78

- 1 Email from Fazel Rahman, Project Manager Operations, DMAC, 25 February 2020; and Article 7 Report (covering 2019), Form F.
- 2 Emails from Mohammad Akbar Oriakhil, Head of Planning and Programme, DMAC, 31 August and 1 September 2020.
- 3 Article 7 Report (covering 2019), Form F.
- 4 Ibid.
- 5 Email from DMAC, 11 April 2018; Statement of Afghanistan, CCM intersessional meetings (Clearance and Risk Education Session), Geneva, 15 April 2013.
- 6 Email from Abdul Qudos Ziaee, DMAC, 3 April 2019.
- 7 Emails from Fazel Rahman, DMAC, 25 February and 20 July 2020.
- 8 Ibid. The funding was allocated for clearance of a total of 403,423m² in two districts of south-eastern Khost province.
- 9 Email from Mohammed Shafiq Yousufi, DMAC, 20 July 2020.
- 10 Email from Sohaila Hashemi, Communications and Advocacy Officer, UNMAS, 13 May 2020.
- 11 DMAC, "National Mine Action Strategic Plan 1395-1399 (2016-2020), State Ministry for Disaster Management and Humanitarian Affairs, undated but 2016, p. 17.
- 12 GICHD, Integrated Capacity Assessment Report, 5 July 2019 (draft), p. 19. DMAC reported that at the end of 2019 it employed 144 staff and total manpower of MAPA humanitarian IPs amounted to 6,338. Email from Fazel Rahman, DMAC, 25 February 2020.
- 13 DMAC, "Gender mainstreaming strategy of the Mine Action Programme of Afghanistan", undated but 2013, pp. 3-9.
- 14 GICHD, Integrated Capacity Assessment Report, 5 July 2019 (draft), p. 17.
- 15 Email from Fazel Rahman, DMAC, 25 February 2020.
- 16 Ibid.
- 17 Emails from Fazel Rahman, DMAC, 25 February and 28 April 2020.
- 18 Email from Fazel Rahman, DMAC, 28 April 2020.
- 19 GICHD, Integrated Capacity Assessment Report, 5 July 2019 (draft), p. 16.
- 20 The four goals are to: 1) facilitate development; 2) integrate mine action into other sectors such as health, education, agriculture and economic development; 3) prevent and mitigate the effects of landmines through clearance, risk education, victim assistance, advocacy and stockpile destruction; and 4) mainstream gender and diversity.
- 21 Email from Abdul Qudos Ziaee, DMAC, 3 April 2019.
- 22 Emails from Fazel Rahman, DMAC, 25 February and 28 April 2020.
- 23 Statement by Mohammed Shafiq, GICHD workshop, Geneva, 26 March 2019.
- 24 Email from Fazel Rahman, DMAC, 25 February 2020.
- 25 Ibid.
- 26 Ibid.
- 27 Ibid.
- 28 Article 7 Report (covering 2019), Form F.
- 29 Email from Fazel Rahman, DMAC, 27 September 2020.
- 30 Ibid.
- 31 Ibid.
- 32 Emails from Mohammad Akbar Oriakhil, DMAC, 31 August and 1 September 2020.
- 33 Email from Fazel Rahman, DMAC, 25 February 2020; Article 7 Report (covering 2019), Form F.
- 34 Email from Fazel Rahman, DMAC, 25 February 2020; Article 7 Report (covering 2019), Form I.

BOSNIA AND HERZEGOVINA



CLEARING CLUSTER MUNITION REMNANTS 2020

ARTICLE 4 DEADLINE: 1 MARCH 2021

DEADLINE EXTENSION REQUESTED TO 1 SEPTEMBER 2022

KEY DATA

CLUSTER MUNITION CONTAMINATION: LIGHT

NATIONAL ESTIMATE

2.31 KM²

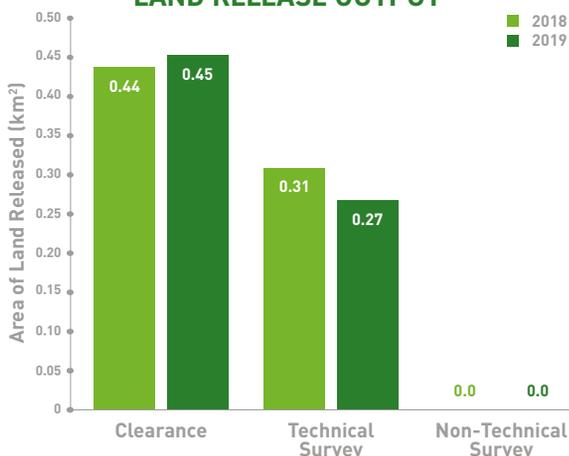
SUBMUNITION CLEARANCE IN 2019

0.45 KM²

SUBMUNITIONS DESTROYED IN 2019

85

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Bosnia and Herzegovina (BiH)'s new national mine action strategy for 2018–25 was adopted by the Council of Ministers in January 2019. It included the operational goal of completing cluster munition remnants (CMR) clearance by BiH's Convention on Cluster Munitions (CCM) Article 4 clearance deadline 1 March 2021. However, BiH will not meet its clearance deadline and submitted an 18-month deadline extension request to 1 September 2022, which will be considered by States Parties at the Second Review Conference of the CCM in November 2020.

RECOMMENDATIONS FOR ACTION

- BiH should adopt, without further delay, the amended demining law drafted in 2017.
- BiH should implement the recommendations of both the 2015 United Nations Development Programme (UNDP) Mine Action Governance and Management Assessment, and the 2016 performance audit report of the Audit Office of the Institutions of BiH,¹ which remain valid. In particular, BiH should continue reforming and strengthening the governance and management of the mine action programme.
- The Bosnia and Herzegovina Mine Action Centre (BHMIC) should develop a detailed and costed Article 4 work plan, with concrete milestones for the release of all remaining CMR-contaminated area, including the area that is also contaminated with depleted uranium.
- BHMIC should report more accurately and consistently on the extent of CMR contamination and on release of CMR-contaminated areas. This should be done using the classification of suspected hazardous area (SHA) and confirmed hazardous area (CHA), and by disaggregating CMR-contaminated area reduced through technical survey from area released through clearance, consistent with the International Mine Action Standards (IMAS).
- BiH should fully embrace the "Country Coalition" approach, in partnership with Germany, which can provide a forum for regular dialogue among all mine action stakeholders to strengthen coordination and identify and overcome challenges.
- BHMIC should strive to improve gender balance in the sector, at the least by meeting the target of 40% female staff set by the 2003 Law on Gender Equality.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2019)	Score (2018)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	6	5	In 2019, BiH removed 3.6km ² of contamination from individually fired submunitions from its CCM reporting (as this does not fall under the provisions of the Convention), thereby reducing the contaminated area remaining to be addressed under its Article 4 obligation. BiH's national baseline of CMR contamination is not classified into CHA and SHA, consistent with IMAS.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	6	7	National ownership of mine action in BiH falls under the responsibility of the Demining Commission and BHMAC. BiH's National Mine Action Strategy 2018–2025 was adopted in January 2019, but as at August 2020, the amended demining law (2017) was still awaiting parliamentary adoption. Governance of the national mine action programme needs to be strengthened and Article 4 implementation better coordinated to ensure early completion.
GENDER AND DIVERSITY (10% of overall score)	5	6	The National Mine Action Strategy 2018–2025 supports the 2003 Law on Gender Equality. BHMAC has stated that, under its leadership, relevant actors will include gender in all phases of all mine action activities. Two of the three members of the newly appointed Demining Commission are women. However, within BHMAC's own programme, and those of clearance operators too, women make up only a small proportion of the total number of staff, and an even smaller proportion of operations staff in the field.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	5	6	BHMAC is in the process of migrating from its own information management system to the new web-based system, IMSMA [Information Management System for Mine Action] Core, with the support of UNDP and the Geneva International Centre for Humanitarian Demining (GICHD). BHMAC does not report accurately and consistently on the extent of anti-personnel mine contamination or on survey and clearance output. BiH's Article 7 report covering 2019, contained errors in table totals for both contamination and clearance data. In addition, land released through technical survey was not disaggregated from release through clearance in the BiH's reporting, as best practice demands.
PLANNING AND TASKING (10% of overall score)	6	6	BiH adopted its National Mine Action Strategy 2018–2025 in January 2019, which foresees fulfilment of Article 4 by 1 March 2021. However, BHMAC failed to effectively plan for completion of CMR clearance early enough; and it appears to have been accorded less priority than mine clearance, which does represent by far the greater challenge in BiH. A "completion initiative" to address CMR contamination was finally elaborated in 2019, with BiH Armed Forces, entity Civil Protections, and Norwegian People's Aid (NPA) tasked to release CMR-contaminated area. However, output has not been sufficient for BiH to be able to meet its deadline. Furthermore, progress in survey and clearance of CMR contamination in 2020 was being impacted by the COVID-19 pandemic. BiH will not complete CMR clearance by its March 2021 Article 4 deadline and has requested an 18-month extension to 1 September 2022.
LAND RELEASE SYSTEM (20% of overall score)	6	6	BHMAC has in place national standards and standing operating procedures (SOPs) for survey and clearance of CMR, which are adapted to the local threat and context. There is sufficient available capacity for survey and clearance of CMR, with the BiH Armed Forces, entity Civil Protections, NPA, and other operators all accredited, but release of CMR-contaminated area has been insufficiently prioritised and BiH will not meet its March 2021 deadline.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	5	5	The rate of CMR clearance has been unacceptably slow, with less than 1.75km ² of CMR-contamination cleared in the last five years. In comparison to landmine contamination, CMR in BiH was far less extensive and could have easily been addressed within the initial 10-year deadline given sufficient political will and commitment. However, planning for CMR completion came too late to meet its original Article 4 deadline and BiH has requested an extension to 1 September 2022.
Average Score	5.4	5.7	Overall Programme Performance: AVERAGE

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- The Demining Commission (representatives from three ministries (Civil Affairs, Security, and Defence) elected to represent BiH's three main ethnic groups (Bosniaks, Croats, and Serbs))
- Bosnia and Herzegovina Mine Action Centre (BHMAC)

NATIONAL OPERATORS

- Armed Forces of BiH
- BHMAC
- Civil Protection Administration of Republika Srpska
- Federal Administration of Civil Protection (FACP)

INTERNATIONAL OPERATORS

- Norwegian People's Aid (NPA)

OTHER ACTORS

- European Union Force Bosnia and Herzegovina (EUFOR)
- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Development Programme (UNDP)

UNDERSTANDING OF CMR CONTAMINATION

As at the end of 2019, BiH reported a total of 2.31km² of CMR-contaminated area (see Table 1), with no disaggregation of CMR-contaminated area into CHA and SHA.² In its Article 4 deadline extension request, submitted in September 2020, it was stated that CMR-contaminated area had been reduced to below 2.14km².³

This compares to 2.9km² of contamination reported in September 2019 at the Ninth Meeting of States Parties,⁴ and contamination as at the end of 2018 of 6.3km².⁵ The reduction in the estimate of contamination since the end of 2018 is mostly explained by the removal of 3.6km² of contamination from items projected in an improvised manner from BiH's baseline of CMR-contaminated area.⁶ This contamination was the result of individually launched KB-1 submunitions fired from modified AK-47 rifles,⁷ and was originally reported as 2.7km²,⁸ and then as 2.1km², but was subsequently confirmed as 3.6km² through non-technical survey by Norwegian People's Aid (NPA) and BHMAL.⁹ When used in this way, individual KB-1 submunitions do not fall within the definition of a cluster munition covered by the CCM, and, as such, are not governed by the treaty clearance obligations.¹⁰ BHMAL included reference to this contamination in its National Mine Action Strategy 2018–2025,¹¹ and legitimately removed it from its Article 7 transparency reporting covering 2019.

BiH's remaining CMR to be addressed under Article 4 does, however, include a CMR-contaminated area that also contains depleted uranium, located in Japaga – Han Pijesak in Republika Srpska.¹²

Table 1: Cluster munition-contaminated area by canton (at end 2019)¹³

Canton	Area (km ²)
Unsko-Sanski	0.07
Tuzlanski	0.41
Zenicko-Dobojski	0.41
Central Bosnia Canton	0.48
Neretva	0.04
Sarajevo	0.22
Canton 10	0.18
Total Federation BiH	1.81
Total Republika Srpska	0.49
Total	2.30

A total of 0.65km² of remaining CMR contamination is in areas which also contain mines.¹⁴

CMR contamination dates back to the conflicts of 1992–95 related to the break-up of the Socialist Federal Republic of Yugoslavia.¹⁵ A survey and initial general assessment of cluster munition contamination was jointly conducted by BHMAL and NPA in 2011, which estimated the total area containing CMR at more than 12km², scattered across 140 areas. This estimate was subsequently revised upwards to 14.6km² following the start of land release operations in 2012.¹⁶ Of this, around 5km² was deemed actually contaminated and marked for clearance.¹⁷

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

BiH is also contaminated by unexploded ordnance (UXO) other than unexploded submunitions and by anti-personnel and anti-vehicle mines (see Mine Action Review's *Clearing the Mines 2020* report on BiH for further information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Demining Commission, under the BiH Ministry of Civil Affairs, supervises the State-wide BHMAL and represents BiH in its relations with the international community on mine-related issues.¹⁸ The Demining Commission is composed of representatives from three ministries (Civil Affairs, Defence, and Security) elected to represent BiH's three main ethnic groups (Bosniaks, Croats, and Serbs). Whereas the Minister for Civil Affairs remains ultimately responsible for mine action, the Demining Commission is the strategic body responsible for setting mine action policy, and it proposes the appointment of BHMAL senior staff, for approval by the Council of Ministers.¹⁹

According to a 2016 audit office report, however, "The Commission has not developed a methodology on how to monitor the work of the BHMAL".²⁰ BHMAL, established by a 2002 Decree of the Council of Ministers, is responsible for regulating mine action and implementing BiH's survey and clearance plans.²¹ BHMAL operates from its headquarters in Sarajevo, and two main offices in Sarajevo and Banja Luka, and eight regional offices (Banja Luka, Bihac, Brčko, Mostar, Pale, Sarajevo, Travnik, and Tuzla).²²

Since 2008, efforts have been made to adopt new mine action legislation in BiH with a view to creating a stable platform for mine action funding by the government and local authorities. As at June 2020, however, an amended text from 2017 was still awaiting parliamentary adoption. Clearer legislation on liabilities related to mine action activities would be beneficial to all mine action stakeholders in BiH.

The governance of BiH's mine action programme needs to be strengthened and would benefit from improved communication and coordination with clearance operators, including through the re-establishment of technical working groups (TWGs), which provide a platform for operators to discuss, learn from each other, and work in synergies on matters related to operations. In addition, it is hoped that the "Country Coalition" established between BiH and Germany, on which there was an introductory meeting in February 2020,²³ will provide a forum for regular dialogue among all mine action stakeholders, help demonstrate national ownership, strengthen coordination of APMB Article 5 and CCM Article 4 implementation, and identify and overcome challenges, and monitor progress against the 2018–25 strategy.

BHMAC is funded by the common institutions of BiH and other institutions at State level.²⁴ BiH national State funding also supports survey and clearance of CMR. Operations of the BiH Armed Forces are supported by the State budget of BiH, while the Government of the Federation of BiH finances the operations of Federal Administration of Civil Protection (FACP).²⁵ The Civil Protection Administration of Republika Srpska is financed by the Government of Republika Srpska.²⁶

On 7 April 2020, it was announced that €10 million of European Union EU funding under the Instrument for Pre-accession Assistance (IPA) 2018–20 programme, which had been intended for humanitarian demining, had been diverted to COVID-19 and migration issues. The EU funds had been intended for support of mine action in BiH, including the procurement of protective equipment and supplies for BHMAC's work, the entity Civil Protections, as well as financing of demining projects of priority areas.²⁷

In its 2020 Article 4 extension request, BiH has said that it requires funds totalling 4.5 million BAM (approximately US\$2.68 million) in order to fulfil its Article 4 obligations by its requested deadline of 1 September 2022. Part of the funding will be allocated from state budgets for the Armed Forces of BiH and the entity Civil Protections, and part will be sought from donors.²⁸

GENDER AND DIVERSITY

The National Mine Action Strategy 2018–2025 specifies that: "Under the leadership of BHMAC, relevant actors will include gender and diversity into all phases of planning, realisation and follow-up of all mine activities".²⁹ The mine action strategy considered and supported the 2003 Law on Gender Equality in BiH, which includes equal treatment of the genders and equality of opportunity, and prohibits direct and indirect discrimination on the grounds of gender. The Law on Gender Equality determines that equal representation of men and women exists when the percentage of either gender in bodies at all levels in BiH (State, entity, cantonal, and municipality level) is at least 40%. BiH's national mine action strategy also considered the 2017 Gender Equality Action Plan.³⁰ However, as at August 2020, of BHMAC's 171 employees, only 42 were women (25%).³¹ Of BHMAC's 107 operations staff in the field, 10 were women (9%).³² BHMAC reported that it has a gender and diversity policy and that BHMAC upholds the Law on Gender Equality and routinely includes it in the development of strategies and standards.³³

BHMAC has reported that it consults all groups affected by CMR, including women and children, during survey and community liaison activities, and BHMAC's survey and community liaison teams are inclusive with a view to facilitating this. BHMAC also reported that relevant mine action data is disaggregated by gender and age.³⁴ In a welcome development, two out of three of the new members of BiH's Demining Commission, adopted on 30 April 2020, are women.³⁵ Except for one reference to the provision of adequate gender- and age-sensitive mine risk education,³⁶ there was no other mention of either gender or diversity in BiH's Article 4 deadline extension request submitted in September 2020.

The Civil Protection Administration of Republika Srpska reported that nearly 22% of its staff were female, including 20% of managerial/supervisory positions, but only 5% of operational roles. It reported that during survey and community liaison activities, it cooperates with the local population, regardless of ethnicity; and where needed has representatives from different ethnic groups.³⁷

NPA reports promoting gender equality in all aspects of its programme activities in BiH. Mixed gender representation is an obligation for NPA teams conducting community liaison and risk education.³⁸ That said, NPA reported that the overall gender split of its staff as at March 2020 was 118 men and 10 women, which represents only 8% female staff. Of its 82 operational staff deployed in the field, three medic positions and one community liaison position are held by women. NPA explained that it rarely received applications from women for vacant operational roles.³⁹ NPA says it is driving to achieve a gender balance, and that the programme encourages the employment of women, including into managerial and operational staff positions. Five managerial positions in the NPA BiH programme are held by women.⁴⁰ During the implementation of its activities, NPA teams organise meetings with female representatives in smaller groups, to provide a forum in which women may feel more comfortable to talk about potentially contaminated areas in their community and NPA's interventions.⁴¹

INFORMATION MANAGEMENT AND REPORTING

As at June 2020, BHMAC was using its own information management system, the Bosnia and Herzegovina Mine Action Information System (BHMAIS), but with the support of UNDP and the Geneva Institute for Humanitarian Demining (GICHD), and with financing from the EU, BHMAC was in the process of migrating to Information Management System for Mine Action (IMSMA) Core.⁴²

The joint development of IMSMA Core in BiH began in 2019. Data from the country assessment project was originally expected to be transferred in March/April 2020 and the new database operational by mid 2020.⁴³ As at May 2020, however, the transition from BHMAIS to IMSMA Core was only partially complete and the target was then set for completion by the end of the year.⁴⁴ GICHD training in the new system was also planned for BHMAC staff, and will take place once the situation with COVID-19 permits.⁴⁵ Once in place the database should be sustainable, through the programme will still be susceptible to potential challenges stemming from turnover of key staff positions in the BHMAC IM department.⁴⁶

In addition, UNDP has developed a Geographic Information System (GIS) mobile application, which was also expected to be released in the course of 2020.⁴⁷

BHMAC does not report consistently on CMR contamination by SHAs and CHAs, in a manner consistent with IMAS. In addition, there are frequent inaccuracies in BHMAC reporting on land release.

Information in BHMAC's information management system is made available to clearance operators.⁴⁸ However, NPA reported in March 2020 that data relating to CMR SHAs was being reviewed, with its support, and that BHMAC data on CMR-contaminated areas was neither accurate nor up to date.⁴⁹ In its September 2019 Article 4 extension request BHMAC did, however, provide more detailed information on the location and size of the remaining CMR-contaminated area.⁵⁰

BiH submitted a CCM Article 7 report covering 2019, but failed to submit an Article 7 report the previous year, covering 2018.

PLANNING AND TASKING

In 2017, BiH developed a new national mine action strategy for 2018–25, with support from the GICHD, which addresses all mine and cluster munition remnant contamination. The previous BiH Mine Action Strategy for 2009–19 guided mine action in BiH, but did not mention CMR clearance specifically.

The new strategy 2018–25 was formally adopted in January 2019.⁵¹ Strategic goal three of the strategy on survey and clearance, includes a commitment to complete CMR clearance obligations by 1 March 2021, in line with BiH's CCM Article 4 deadline.⁵² However, the strategy did not contain an action plan or concrete milestones towards completion of CMR clearance.⁵³ The strategy was due to be revised in 2020 and 2023, to consider progress and adjust for any changes in context.⁵⁴

There was a "completion initiative" plan, agreed with BHMAC, the BiH Armed Forces, the FACP, and NPA, which aims to complete clearance of all remaining CMR-contaminated areas by 1 March 2020.⁵⁵ The completion initiative received support from the Norwegian Ministry of Foreign Affairs, the Swiss Government, and Norwegian cooperative COOP Norge SA.⁵⁶ However, progress in implementing the completion initiative was slowed by the impact of the COVID-19 pandemic and as a result of the failure of the Council of Ministers to appoint a Demining Commission to renew demining accreditations, including those of the BiH Armed Forces, the FACP, and

NPA.⁵⁷ The COVID-19 pandemic significantly impacted survey and clearance operations, which were paused in the Spring and only recommenced in mid 2020. It also impacted BHMAC, which worked at reduced capacity.⁵⁸ Furthermore, the completion initiative did not include the CMR-contaminated area with depleted uranium contamination,⁵⁹ which is, however, still covered under BiH's Article 4 obligations.

The completion plan fell behind schedule and BiH will not fulfil its Article 4 commitments before the March 2021 deadline. BHMAC has requested to extend its deadline by 18 months to 1 September 2022. The extension request, submitted for consideration and approval by States Parties in November 2020, included a work plan for release of remaining CMR-contaminated areas,⁶⁰ but it lacks concrete milestones. The six CMR-contaminated areas, totalling 651,480m², which also have anti-personnel mine contamination, will be cleared of mines first and then of CMR.⁶¹

The 2020 Article 4 extension request also includes reference to the CMR task that has contamination from depleted uranium, but does not say how BiH intends to address this task.⁶²

According to BHMAC, cluster munition-contaminated areas are prioritised for clearance based on agreement with local communities and municipalities.⁶³

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

In 2016, the Demining Commission formally adopted three revised chapters of the national mine action standards (NMAS) on land release, non-technical survey, and technical survey, drafted in cooperation with EU technical assistance through the Land Release pilot project, UNDP, and the GICHD.⁶⁴ The Demining Commission adopted new standards for CMR at the beginning of 2017.⁶⁵

In 2015, BHMAC adopted a new national SOP for non-technical survey of areas suspected to contain CMR, based on NPA's own SOP.⁶⁶ In October 2016, BHMAC made updates and improvements to national SOPs for CMR clearance and technical survey, also based on NPA's SOPs.⁶⁷ In April 2018, the new SOP for non-technical survey was adopted by the Demining Commission.⁶⁸

BHMAC reported that survey or resurvey of hazardous areas suspected to contain CMR is conducted as standard, as part of all land release operations.⁶⁹ According to NPA, national mine action standards in BiH are suitably adapted to the local threat and context, and enable efficient evidence-based survey and clearance of CMR.⁷⁰

OPERATORS AND OPERATIONAL TOOLS

Land release operations on CMR-contaminated area in 2019 were conducted by non-governmental organisation NPA; entity Civil Protections; and the BiH Armed Forces.⁷¹ In its Article 4 deadline extension request, BHMAC said that the remaining CMR contamination will be released by these same entities. However, it also stated that CMR operations can be performed by Centar za humanitarno razminiranje, Detektor, In Demining NGO, and Stop Mines NGO, and that these organisations could be accredited and engaged, if and when a tender is issued for removal of the remaining CMR contamination.⁷²

BHMAC asserts that the BiH Armed Forces and the FACP are equipped with necessary demining equipment and capable, trained personnel for CMR clearance.⁷³ However, both have suffered from logistical challenges and equipment deficits in the past, which prevent them from working at full capacity.⁷⁴ Since 2010, NPA has increasingly focused on building the capacity of the Army's Demining Battalion. This involves transfer of knowledge through operational planning of clearance and technical survey operations; direct operational support; and provision of mine detection dogs (MDDs) and equipment, among other things.⁷⁵ The BiH Armed Forces require ongoing support to secure personal protective equipment, batteries for detectors, and fuel for demining machinery, since the Army's own complex procurement system often cannot ensure delivery in time.⁷⁶ In August 2020, the Demining Battalion received a donation of 180 demining visors from the US government, enabling 18 manual clearance teams to be equipped.⁷⁷

As at June 2019, two of the thirty-four BiH Armed Forces' ten-strong demining teams (eight deminers, plus a team leader and a medic) were specialised and deployed in CMR clearance.⁷⁸ Under the completion initiative, a third team was equipped for CMR survey and clearance operations, thanks to the provision by NPA of eight magnetic detectors, under a Swiss-funded contract. NPA also loaned the Demining Battalion its Digger D-250 and provided direct operational support for mechanical ground preparation.⁷⁹ The Demining Battalion also receives support from Austria, France, Italy, and the United States, as well as European Union Force Bosnia and Herzegovina (EUFOR), which alone provides 90% of total support.⁸⁰ Furthermore, deminers in the BiH Armed Forces are forced to stop demining at the age of 38 (this upper limit, until recently, had been 35). This results in experienced deminers being forced to retire at a very early age and results in a high turnover of personnel.⁸¹

The Civil Protection Administration of Republika Srpska conducts survey and clearance of mines, CMR, and other explosive remnants of war (ERW). One manual clearance team, of eight deminers, was used for technical survey of CMR in 2019, as well as for mines.⁸²

In 2019, NPA deployed two manual teams (each with 10 clearance personnel), for technical survey and clearance of CMR-contaminated area in BiH.⁸³ As mentioned above, since 2010, NPA has also focused on building the capacity of the Armed Forces Demining Battalion.

Mines Advisory Group (MAG) received operational accreditation in April 2017, and began demining in May 2017, but is engaged in landmine survey and clearance only.

The Demining Commission is responsible for considering the periodic re-accreditation of field operators, following the recommendation from BHMAC. Any delay in the appointment of the Demining Commission can therefore impact the re-accreditation process and have a knock-on impact on survey and clearance operations.⁸⁴ This was the case from late October 2019, when the previous Demining Commission's term expired, until 30 April 2020, when the new Demining Commission was put in place and accreditations could again be renewed or approved. The delay in appointing the new Demining Commission negatively impacted CMR operations, in some instances preventing the initiation of CMR clearance at the start of the demining season.⁸⁵

Quality control (QC) and quality assurance (QA) is conducted by BHMAC.⁸⁶

No animal detection systems or mechanical assets were used in CMR survey or clearance operations in BiH in 2019. This is despite the fact that in 2017, BiH announced that technical survey and CMR clearance would also be conducted with the use of special detection dogs (SDDs), through NPA.⁸⁷

In 2014, NPA successfully piloted using SDDs for technical survey and clearance of CMR-contaminated areas.⁸⁸ It recommended the use of detection dogs in technical survey (both targeted and systematic investigation).⁸⁹ However, as at August 2020, BHMAC had yet to make the necessary amendments to the national standards.

No cluster munition-contaminated area was reported to have been released by the FACP in 2019.⁹⁰

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2019

A total of 0.72km² of CMR-contaminated area was released in 2019: 0.27km² through technical survey and 0.45km² through clearance, during which 85 submunitions were destroyed. No area was cancelled through non-technical survey.⁹¹

SURVEY IN 2019

In 2019, 0.27km² of CMR-contaminated area was reduced through technical survey, as reported by BHMIC to Mine Action Review and included in BHMIC's Article 4 deadline extension request.⁹² In BiH's Article 7 report, however, the amount of land released in 2019 was reported as a combined total of technical survey and clearance (see Table 2), rather than disaggregated and reported separately, as Article 7(1)(i) of the CCM and international best practice require.⁹³ No CMR-contaminated area was cancelled through non-technical survey in 2019.

CLEARANCE IN 2019

In 2019, 0.45km² of CMR-contaminated area was cleared, as reported by BHMIC to Mine Action Review and included in BHMIC's Article 4 deadline extension request.⁹⁴ In BiH's Article 7 report, however, the amount of land released in 2019 was reported by BiH as a combined total of technical survey and clearance (see Table 2), rather than disaggregated and reported separately, as best practice requires.⁹⁵

A total of 85 unexploded submunitions and 13 items of other UXO were destroyed during technical survey and clearance (see Table 2).⁹⁶

The 2019 land release output was, overall, a slight decrease on 2018, when a combined 0.75km² was released (0.44km² through clearance and 0.31km² through technical survey).⁹⁷

Table 2: CMR-contaminated area released through technical survey and clearance in 2019⁹⁸

Canton	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
Neretva	388,504	57	8
Tuzlanski	187,866	4	0
Total Federation BiH	576,370	61	8
Total Republika Srpska	144,063	24	5
Totals	720,433	85	13

BHMIC reported that all cluster munition-contaminated area cleared in 2019 contained CMR.⁹⁹

ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM, BiH is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 March 2021. BiH will not meet this deadline and has requested an Article 4 deadline extension to 1 September 2022 for consideration at the Second CCM Review Conference in November 2020.¹⁰⁰

The rate of CMR clearance has been unacceptably slow, with less than 2km² of CMR-contamination cleared in the last five years (see Table 3).

Table 3: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2019	0.45
2018	0.44
2017	0.27
2016	0.10
2015	0.23
Total	1.49

A “completion initiative” plan was developed in 2019, between BHMAC, BiH Armed Forces, FACP, and NPA, aimed at fulfilling BiH's obligations by the 1 March 2021 Article 4 deadline. However, as it was only elaborated in 2019, it left very little margin for delay. The impact of COVID-19 and delays to operations caused by the failure to appoint the Demining Commission in a timely fashion, which renews accreditations, means that the completion initiative will not be realised by the clearance deadline.

BiH's September 2020 Article 4 deadline extension request includes reference to the CMR task in the municipality of Han Pijesak, in the Republika Srpska, which also contains depleted uranium munitions remaining from NATO air strikes. However, it does not provide details of how BiH plans to address this contamination.¹⁰¹ The presence of depleted uranium complicates CMR clearance as deminers must be adequately trained and protected against exposure to the uranium. Previously, in February 2020, BHMAC had said it was discussing the possibility of assistance from NATO to clear this area.¹⁰²

Given the relatively small scale of CMR contamination in BiH, especially compared to the far greater contamination from mines, BiH could have completed clearance within its original 10-year Article 4 deadline, had there been greater political will, national ownership, and commitment from BHMAC, the Demining Commission, and their superiors in the government.

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

The National Mine Action Strategy for 2018–2025 includes a section on management of residual contamination, which requires the development of a strategy for the management of residual contamination by 2022.

- 1 UNDP, Draft Mine Action Governance and Management Assessment for BiH, 13 May 2015; and Audit Office of the Institutions of Bosnia and Herzegovina, “Performance Audit Report. Efficiency of the Demining System in Bosnia and Herzegovina”, No. 01-02-03-10-16-1-1101/16, 4 November 2016, p. 22.
- 2 CCM Article 7 Report (covering 2019), Form F.
- 3 2020 Article 4 deadline Extension Request, September 2020, pp. 9 and 11.
- 4 Statement of BiH, CCM Ninth Meeting of States Parties, Geneva, 2–4 September 2019. BiH reported 2.8km² as suspected to contain CMR at “40 identified contaminated areas - micro-locations”.
- 5 Email from Ljiljana Ilić, Interpreter, BHMAC, 24 April 2019.
- 6 Statement of BiH, CCM Ninth Meeting of States Parties, Geneva, 2–4 September 2019.
- 7 Email from Ljiljana Ilić, BHMAC, 24 April 2019; and Statement of BiH, CCM Ninth Meeting of States Parties, Geneva, 2–4 September 2019.
- 8 BiH, National Mine Action Strategy 2018–2025, p. 26.
- 9 Statement of BiH, CCM Ninth Meeting of States Parties, Geneva, 2–4 September 2019.
- 10 According to Article 2(2) of the CCM, “‘Cluster munition’ means a **conventional munition** that is designed to disperse or release **explosive submunitions** each weighing less than 20 kilograms, and includes those explosive submunitions” [emphasis added].
- 11 BiH, National Mine Action Strategy 2018–2025, p. 26.
- 12 Email from Jonas Zachrisson, Country Director, NPA, 26 March 2020.
- 13 Article 7 Report (covering 2019), Form F; and email from Ljiljana Ilić, BHMAC, 2 September 2020. In BiH's CCM Article 7 Report (covering 2019), Form F, the total contaminated area for the Federation BiH is reported as 1.82km², however, the total sum of the Cantons comes to 1.71km². BHMAC confirmed the corrected figures as reflected in Table 1 above.
- 14 Email from Ljiljana Ilić, BHMAC, 2 September 2020; and 2020 Article 4 deadline Extension Request, September 2020, p. 9.
- 15 BHMAC website, “Mine Action Report in BiH for 2015 approved by the BH Ministry Council”, 16 May 2016.
- 16 Statements of BiH, First CCM Review Conference, Dubrovnik, 9 September 2015; High-level Segment, First CCM Review Conference, 7 September 2015 and CCM Ninth Meeting of States Parties, Geneva, 2–4 September 2019.
- 17 Statement of BiH, High-level Segment, First CCM Review Conference, Dubrovnik, 7 September 2015.
- 18 BHMAC Organisational chart, accessed 17 July 2019 at: bit.ly/2Ycj4xl.
- 19 UNDP, Draft Mine Action Governance and Management Assessment for BiH, 13 May 2015, p. 22.
- 20 Audit Office of the Institutions of Bosnia and Herzegovina, “Performance Audit Report. Efficiency of the Demining System in Bosnia and Herzegovina”, 4 November 2016, p. 8.
- 21 Bosnia and Herzegovina Official Gazette, Sarajevo, 17 March 2002.
- 22 BiH, National Mine Action Strategy 2018–2025, p. 8.
- 23 BHMAC website, “Director Sasa Obradovic participated in the Country Coalition meeting, organized by the Ministry of Foreign Affairs of the Republic of Germany”, 12 February 2020, at: bit.ly/3fUjuBz.
- 24 Emails from Goran Zdrale, BHMAC, 17 May 2017; and Ljiljana Ilić, BHMAC, 24 April 2019.
- 25 Ibid., and email from Fotini Antonopoulou, EU, 23 July 2018.
- 26 Email from Suad Baljak, UNDP, 18 September 2020.
- 27 BHMAC website, “Ten million EUR intended for humanitarian demining projects in BiH diverted to COVID-19 and migration issues”, 10 April 2020, at: bit.ly/37X1Wlq; and email from Suad Baljak, UNDP, 18 September 2020.
- 28 2020 Article 4 deadline Extension Request, September 2020, pp. 5 and 10.
- 29 BiH, National Mine Action Strategy 2018–2025, p. 14.
- 30 Ibid.
- 31 Email from Ljiljana Ilić, BHMAC, 2 September 2020.

- 32 Email from Ljiljana Ilić, BHMIC, 24 April 2019.
- 33 Ibid.
- 34 Emails from Ljiljana Ilić, BHMIC, 24 April 2019; and Goran Šehić, Deputy Programme Manager, NPA, 25 February 2019; and BiH, National Mine Action Strategy 2018–2025, p. 52.
- 35 2020 Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, p. 18.
- 36 2020 Article 4 deadline Extension Request, September 2020, p. 7.
- 37 Email from Dragan Kos, Assistant Director, Civil Protection Administration of Republika Srpska, 2 April 2020.
- 38 Email from Goran Šehić, NPA, 25 February 2019.
- 39 Email from Jonas Zachrisson, NPA, 26 March 2020.
- 40 Ibid.
- 41 Ibid.
- 42 2020 APMBC Article 5 deadline Extension Request, p. 5.
- 43 Email from Suad Baljak, UNDP, 30 March 2020.
- 44 Email from GICHD, 13 May 2020.
- 45 Emails from Suad Baljak, UNDP, 30 March and 14 July 2020.
- 46 Email from GICHD, 13 May 2020.
- 47 Email from Suad Baljak, UNDP, 30 March 2020.
- 48 Email from Goran Šehić, NPA, 25 February 2019.
- 49 Emails from Goran Šehić, NPA, 25 February 2019; and Jonas Zachrisson, NPA, 26 March 2020.
- 50 2020 Article 4 deadline Extension Request, September 2020, p. 9.
- 51 BHMIC website, "Bosnia and Herzegovina Mine Action Strategy 2019–2025 adopted by the Council of Ministers", available at: bit.ly/2VnPNdJ.
- 52 BiH, National Mine Action Strategy 2018–2025, p. 26.
- 53 Ibid., pp. 21–26.
- 54 Ibid., p. 34.
- 55 Email from Jonas Zachrisson, NPA, 26 March 2020; and Statement of BiH, CCM Ninth Meeting of States Parties, Geneva, 2–4 September 2019.
- 56 Email from Goran Šehić, NPA, 25 February 2019.
- 57 Email from Jonas Zachrisson, NPA, 26 March 2020; and 2020 Article 4 deadline Extension Request, September 2020, p. 5.
- 58 2020 Article 4 deadline Extension Request, September 2020, pp. 4, 5, and 11.
- 59 Email from Jonas Zachrisson, NPA, 26 March 2020.
- 60 2020 Article 4 deadline Extension Request, September 2020, Annex 3.
- 61 2020 Article 4 deadline Extension Request, September 2020, p. 11.
- 62 Ibid., p. 9.
- 63 Email from Ljiljana Ilić, BHMIC, 24 April 2019.
- 64 BHMIC, "Report on Mine Action in BiH for 2016", February 2017, p. 18; and Audit Office of the Institutions of Bosnia and Herzegovina, "Performance Audit Report. Efficiency of the Demining System in Bosnia and Herzegovina", No. 01-02-03-10-16-1-1101/16, October 2016, p. 26; BHMIC, "Adoption of three new chapters of Mine Action Standard for land release, the new approach for solving the mine problem", 28 January 2016; and email from Fotini Antonopoulou, EU, 18 September 2017.
- 65 Interview with Saša Obradovic, Director, BHMIC, Sarajevo, 10 May 2017.
- 66 Emails from Darvin Lisica, NPA, 11 August 2015; and Tarik Serak, BHMIC, 26 May 2016; and Statement of BiH, First CCM Review Conference, Dubrovnik, 9 September 2015.
- 67 Email from Goran Šehić, NPA, 25 February 2019.
- 68 Email from Suad Baljak, UNDP, 10 June 2019.
- 69 Email from Ljiljana Ilić, BHMIC, 24 April 2019.
- 70 Email from Goran Šehić, NPA, 25 February 2019.
- 71 Statement of BiH, CCM Ninth Meeting of States Parties, Geneva, 2–4 September 2019.
- 72 2020 Article 4 deadline Extension Request, September 2020, p. 12.
- 73 Email from Ljiljana Ilić, BHMIC, 24 April 2019.
- 74 UNDP, Draft Mine Action Governance and Management Assessment for BiH, 13 May 2015, p. 29; and interviews with Darvin Lisica, NPA, Sarajevo, 8 May 2017; Haris Lokvancic, Swiss Embassy, Sarajevo, 9 May 2017; and Tarik Serak, BHMIC, Sarajevo, 10 May 2017.
- 75 Email from Jonas Zachrisson, NPA, 26 March 2020.
- 76 Interview with Lt.-Col. Dzevad Zenunovic, Demining Battalion of the Armed Forces of BiH, Sarajevo, 10 May 2017; and email from Goran Šehić, NPA, 18 October 2017.
- 77 "Vlada SAD-a donirala zaštitne vizire Deminerskom bataljonu OSBiH", Sarajevograd, 26 August 2020.
- 78 Interview with Blažen Kovač, Ministry of Defence, Chair of the Demining Commission, Sarajevo, 10 May 2017; and emails from Fotini Antonopoulou, EU, 23 July 2018; and Ljiljana Ilić, BHMIC, 14 June 2019.
- 79 Email from Jonas Zachrisson, NPA, 26 March 2020.
- 80 Email from Fotini Antonopoulou, EU, 18 September 2017.
- 81 Interview with Lt.-Col. Dzevad Zenunovic, Demining Battalion of the Armed Forces of BiH, Sarajevo, 10 May 2017.
- 82 Email from Dragan Kos, Civil Protection Administration of Republika Srpska, 2 April 2020.
- 83 Email from Jonas Zachrisson, NPA, 26 March 2020.
- 84 Email from GICHD, 13 May 2020.
- 85 2020 Article 4 deadline Extension Request, September 2020, p. 5.
- 86 2020 APMBC Article 5 deadline Extension Request, p. 8.
- 87 Statement of BiH, CCM Seventh Meeting of States Parties, Geneva, 4–6 September 2017.
- 88 Email from Amela Balic, NPA Bosnia, 15 April 2015.
- 89 Email from Jonas Zachrisson, NPA, 5 June 2019.
- 90 Email from Ljiljana Ilić, BHMIC, 2 September 2020.
- 91 Article 7 Report (covering 2019), Form F; 2020 Article 4 deadline Extension Request, September 2020, p. 6; and email from Ljiljana Ilić, BHMIC, 18 September 2020. However, while BiH's Article 7 report covering 2019 said 85 submunitions were destroyed in 2019, BiH's Article 4 extension request said that 146 submunitions were destroyed during clearance and technical survey in 2019.
- 92 Email from Ljiljana Ilić, BHMIC, 18 September 2020; and 2020 Article 4 deadline Extension Request, September 2020, p. 6. NPA reported reducing 425,433m² in 2019 in the Federation BiH (Neretva canton (61,724m²), the Central Bosnia Canton (157,151m², during which NPA conducted technical survey with a targeted investigation in order to find an evidence point and after completion of NPA activities, BHMIC cancelled the area through non-technical survey), Tuzlanski canton (37,302m², during which NPA conducted technical survey with a targeted investigation in order to find an evidence point and after completion of NPA activities, BHMIC cancelled the area through non-technical survey), and in Republika Srpska (169,256m²). Email from Jonas Zachrisson, NPA, 26 March 2020. The Civil Protection Administration of Republika Srpska reported reducing 43,584m² through technical survey in 2019, during which one submunition was destroyed, in Koraće, Brod municipality, Republika Srpska. Email from Dragan Kos, Civil Protection Administration of Republika Srpska, 2 April 2020.
- 93 Article 7 Report (covering 2019), Form F. BiH reported a combined total for land released through technical survey and clearance.
- 94 Email from Ljiljana Ilić, BHMIC, 18 September 2020; and 2020 Article 4 deadline Extension Request, September 2020, p. 6.
- 95 Article 7 Report (covering 2019), Form F. BiH reported a combined total for land released through technical survey and clearance.
- 96 Article 7 Report (covering 2019), Form F. However, while BiH's Article 7 report covering 2019 says 85 submunitions were destroyed in 2019, BiH's Article 4 deadline extension request (page 6) reports that 146 submunitions were destroyed during clearance and technical survey in 2019.
- 97 Email from Ljiljana Ilić, BHMIC, 24 April 2019.
- 98 Article 7 Report (covering 2019), Form F; and email from Ljiljana Ilić, BHMIC, 2 September 2020. In BiH's CCM Article 7 Report (covering 2019), Form F, the total clearance is reported as 730,433m², however, the total correctly sums to 729,393km². BHMIC clarified the corrected figures in Table 2 above. NPA reported clearing 262,036m² of CMR-contaminated area in 2019, destroying a total of 41 submunitions (92,045m² in Neretva canton with 34 submunitions destroyed and 169,991m² in Republika Srpska, with 7 submunitions destroyed). Email from Jonas Zachrisson, NPA, 26 March 2020.
- 99 Email from Ljiljana Ilić, BHMIC, 2 September 2020.
- 100 Email from Ljiljana Ilić, BHMIC, 18 September 2020; and 2020 Article 4 deadline Extension Request, September 2020, p. 5.
- 101 2020 Article 4 deadline Extension Request, September 2020, p. 9.
- 102 Interview with Saša Obradovic, BHMIC, Geneva, 11 February 2020.

ARTICLE 4 DEADLINE: 1 SEPTEMBER 2023
UNCLEAR WHETHER ON TRACK TO MEET DEADLINE

KEY DATA

CLUSTER MUNITION CONTAMINATION: LIGHT

NATIONAL ESTIMATE

146,638_M²

SUBMUNITION CLEARANCE IN 2019

0.84_{KM}²

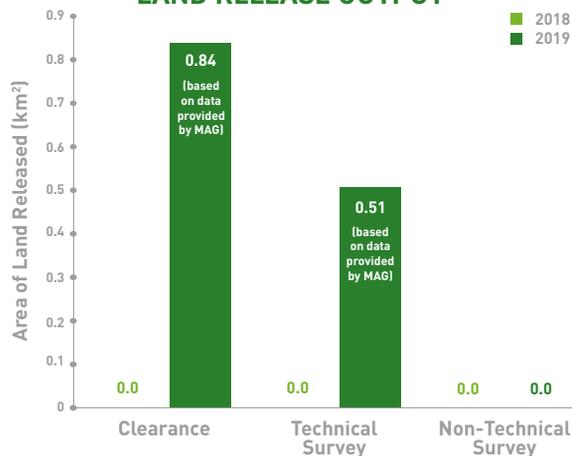
(BASED ON DATA PROVIDED BY MINES ADVISORY GROUP, MAG)

SUBMUNITIONS DESTROYED IN 2019

28

(BASED ON DATA PROVIDED BY MAG)

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Chad provided an estimate of the size of cluster munition-contaminated areas and reported the first clearance of land containing cluster munition remnants (CMR) in five years. The clearance was conducted by Mines Advisory Group (MAG) and Humanity and Inclusion (HI). European Union (EU) funding supported work by the Swiss Foundation for Mine Action (FSD) to clean up the national mine action database and improve reporting.

RECOMMENDATIONS FOR ACTION

- Chad should elaborate a completion strategy for Article 4 implementation, together with an annual work plan for the survey and clearance of remaining CMR-contaminated areas.
- Chad should introduce national standards specific to CMR survey and clearance.
- Chad's Ministry of Economy and Planning should develop a resource mobilisation strategy for the mine action sector.
- Chad's national mine action authority should disaggregate CMR from other explosive ordnance in reporting results of survey and clearance.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2019)	Score (2018)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	4	3	Chad has for the first time reported the estimated extent of cluster munition-contaminated area. The basis for the estimate and the full extent of CMR contamination, however, remained unclear.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	3	3	Chad's mine action authority coordinates the sector and carried out some restructuring to increase effectiveness in 2019 but government financial support is limited to paying staff salaries and some administrative costs while operations depend wholly on donor funding.
GENDER AND DIVERSITY (10% of overall score)	4	4	Gender issues do not appear in Chad's national plans but women are employed in a number of roles, including in managerial- and supervisory-level positions, though mainly in office support functions, risk education, and victim assistance.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	5	3	The National Commission for Demining (HCND)'s mine action database has benefitted from FSD's support through extensive data clean-up and improvements to reporting forms but official data and reporting of CMR survey and clearance do not clearly distinguish between CMR and other ordnance. Chad has submitted Article 7 reports for each of the past five years.
PLANNING AND TASKING (10% of overall score)	3	3	Chad shows intent to tackle its explosive remnants of war (ERW) contamination, including CMR, but has not developed a strategy for fulfilling its Article 4 obligations.
LAND RELEASE SYSTEM (20% of overall score)	5	5	Chad has International Mine Action Standards (IMAS)-compatible national standards but none specific to CMR survey or clearance.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	5	2	Chad reported release of cluster munition-contaminated areas for the first time in five years but inconsistencies in reported results left uncertain the precise extent.
Average Score	4.3	3.3	Overall Programme Performance: POOR

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- National Commission for Demining (Haut Commissariat National de Déminage; HCND)

NATIONAL OPERATORS

- HCND

INTERNATIONAL OPERATORS

- Humanity and Inclusion (HI)
- Mines Advisory Group (MAG)
- Swiss Foundation for Mine Action (FSD)

OTHER ACTORS

- None

UNDERSTANDING OF CMR CONTAMINATION

Chad informed the Convention on Cluster Munitions (CCM) signing conference in 2008 that it had “vast swathes of territory” contaminated by mines and unexploded ordnance, including cluster munitions,¹ but the extent remains unknown. Chad identified 146,638m² of cluster munition-contaminated area in 2019, almost entirely located in the northern Ennedi region (see Table 1).² In addition, some cluster bomb containers were spotted in the Wouda area of Borkou in March 2019, the first such items reported since 2015.³

Table 1: Cluster munition-contaminated area by region (at end 2019)⁴

Province	CHAs	Area (m ²)
Borkou	2	2,782
Ennedi	1	143,856
Totals	3	146,638

Chad’s cluster munition contamination dates back to conflicts with Libya, which occupied northern areas between 1980 and 1987. Chad stated in 2012 that while the precise extent of CMR contamination was not known, it was certain cluster munitions had been used in the Fada region and highly likely they had been used in other parts of the north.⁵ Chad also reported that, after Libyan troops withdrew in 1987, members of the French Sixth Engineers Regiment found and destroyed CMR around former Libyan positions and it suspected additional contamination remained in the Tibesti region.⁶

Chad said there was heavy CMR contamination in palm groves around Faya Largeau, which had caused many casualties.⁷ In January 2015, four children (three girls and one boy) were reportedly injured after handling a submunition in Faya Largeau.⁸ Also in 2015, MAG identified and destroyed a limited number of CMR, including two empty RBK-250-275 cluster bomb containers in the Tibesti region and an AO-1-Sch submunition in the Borkou region.⁹

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Chad’s mine action programme is coordinated by the National Commission for Demining (HCND), which comes under the Ministry of Economy and Development Planning.¹⁰ The HCND is responsible for preparing a national demining strategy, annual work plans, and proposing a budget to support them.¹¹ The National Demining Centre (Centre National de Déminage, CND), which earlier conducted clearance operations, appears to have been dissolved.

Government funding for mine action is limited to payment of salaries for national staff.¹² Threats by former deminers over non-payment of salaries prevented some planned survey and clearance activities from proceeding in 2018.¹³ The long-running strike by deminers included threats by former personnel that have prevented operations in areas of Tibesti earmarked for survey and clearance.¹⁴

A June 2019 decree provided for re-organisation, resulting in four main divisions covering: Operations and Logistics, Planning, Administrative and Financial Affairs and Human Resources.¹⁵ Operators say constant changes in coordination staff have hampered efficiency.¹⁶ They also report lengthy delays obtaining the permits required to import equipment as well as in other bureaucratic procedures.

GENDER AND DIVERSITY

Gender was not discussed in Chad’s latest Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request and recruitment of female staff is not a priority for the HCND, which has undergone drastic downsizing in the past two years and still faces demands for back pay from staff.

Nine women were among the 207 personnel working for the HCND in 2019; they were employed in a range of management, administrative, and field roles. They included the HCND’s assistant director, the administration and finance assistant director, and the head of risk education.¹⁷ The lack of women in HCND’s operational staff limited options for international operators whose deminers are seconded from HCND. As a result, HI employed women in managerial and administrative roles, including its country director, a human resources coordinator, and assistant finance director.¹⁸ The Geneva International Centre for Humanitarian Demining (GICHD) is advising HI’s programme in Chad on the mainstreaming of gender and diversity in their activities.¹⁹

In 2019, MAG employed Chad’s first female deminer as a team leader, overseeing survey and clearance tasks, conducting on-site quality control and reporting data. She had been trained in Benin to EOD [Explosive Ordnance Disposal] Level 3. MAG also employed women in community liaison and administrative functions.²⁰

Operators report that risk education targeted all members of the community and that the resulting data was disaggregated by gender.²¹ MAG community liaison teams conduct focus group discussions with women, since they are better placed to provide information on contamination in some areas such as *wadis* where they collect water and firewood. Discussions led by a female community liaison officer identify women’s priorities for mine action interventions.²²

INFORMATION MANAGEMENT AND REPORTING

The HCND uses an Information Management System for Mine Action (IMSMA) database but poor maintenance meant data available from it was unreliable because of lost reports and duplication. A clean-up of the database undertaken by FSD under the EU-funded PRODECO project that started in 2017 has now resulted in cancellation of large numbers of duplicate entries.²³

FSD also supported data entry and correction and the production of maps of SHAs, and helped to compile tables for Chad's APMBC Article 5 deadline extension request. IMSMA forms were reviewed, updated, and approved at a workshop in 2019. With FSD support, the HCND also introduced standardised forms to be used by operators for weekly and monthly reporting.²⁴

But data and reporting of progress and output in CMR survey and clearance by the national authorities do not clearly distinguish between CMR and other ordnance. Chad has submitted Article 7 reports for each of the past five years.

PLANNING AND TASKING

Chad does not have a strategic plan for cluster munitions. Chad has said it plans to conduct non-technical survey in 2020–21 to identify the location of cluster munition containers in Tibesti and Ouaddaï regions and to clear any contamination found in those areas.²⁵

Since September 2017, Chad's mine action programme has focused mainly on implementing the four-year (2017–21) EU-funded mine action project (PRODECO), which is being implemented by a consortium of three international operators and one national operator.²⁶ HI was due to focus on survey and clearance in the Borkou and Ennedi regions; MAG was to work in the Tibesti and Lake Chad regions; and FSD would provide training and support for information management, while Secours Catholique et Développement (SECADEV) would address victim assistance.²⁷

Those objectives subsequently changed due to insecurity in Tibesti, which prevented MAG from gaining access and forcing it to redirect its demining teams to the Lake Chad area in the west of the country. The HCND acknowledged in its APMBC Article 5 deadline extension request that mine action in Chad had lacked a strategic vision, operational planning, and effective coordination, resulting in a loss of confidence locally and internationally.²⁸

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Chad has national mine action standards that are International Mine Action Standard (IMAS)-compliant but has no CMR-specific standards.

OPERATORS AND OPERATIONAL TOOLS

The HCND is Chad's biggest demining operator, employing a total staff of 320 people in 2019, of whom 113 were seconded to HI and MAG.²⁹ The HCND informed Mine Action Review that combined mine and ERW operational capacity at the end of 2019 amounted to four manual demining teams with 72 personnel, two non-technical survey teams with six personnel, and two teams operating two mechanical assets with a total of seven personnel. Other capacity included two EOD teams with a total of 16 technicians.³⁰ Additional national EOD capacity is available from the Chad armed forces' combat engineering battalion, which received training in demining and improvised explosive device (IED) clearance in May 2019 from two French army engineers.³¹

The mine action component of the PRODECO programme funded by the EU was the only demining operation active in Chad in 2019. HI, the PRODECO consortium lead agency, operated with a total staff of 76 people. These included 35 deminers in three multi-task teams and a survey team of five people who conducted survey and clearance of mined areas in the Kirdimi and Faya districts of Borkou province.³² The HCND said it would remain in the province in the first half of 2020 and work in Ennedi throughout the year.³³ HI is understood to have used drones fitted with infrared cameras to conduct survey³⁴ but provided no further details.

MAG worked with three 12-strong teams of manual deminers, four community liaison staff, and 24 support staff focused on clearance and risk education in northern Chad's Borkou region, including road clearance to enable communications between towns in the north. MAG was supposed to have operated in Tibesti but was prevented from doing so by local conflicts. In consultation with the HCND and HI, it identified alternative areas and carried out an exploratory mission to Borkou in March 2019 before starting operations in June. In 2020, MAG expected to shift operations to Ennedi region.³⁵

As part of the PRODECO programme, 10 HCND deminers were sent to the Centre de Formation au Déminage Humanitaire (CPADD) in Benin for training. Of those, nine qualified for EOD Level 3, the first time Chadian deminers have qualified at this level. Two other HCND staff qualified as quality assurance officers.³⁶

FSD, working with four international and five national staff in 2019, focused on building capacity in the national authority with particular attention to information management, operations management, quality assurance, logistics, and administration. In 2019, FSD also supported production of maps, tables, and analysis for Chad's APMB Article 5 deadline extension request.³⁷ The HCND's work plan for 2020 also called for FSD support for non-technical survey and technical survey in Salamat, Sila, and Wadi Fira.

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2019

The HCND reported release of 4,658,723m² to Mine Action Review in 2019. Of this, 520,801m² was said to have been reduced through technical survey and 4,137,922m²—close to 90% of the total area—was released through clearance.³⁸ That result, however, appeared to combine release of cluster munition tasks and battle area clearance (BAC). It was also inconsistent with Chad's Article 7 Report, which recorded release of a total of 4,332,954m².³⁹

SURVEY IN 2019

Chad's Article 7 report recorded cancellation of 100m² through non-technical survey and reduction of 29,727m² through technical survey.⁴⁰ This was not consistent with reports from operators.

MAG reported that it had reduced an area of 510,506m² in the course of technical survey in Borkou region during 2019.⁴¹ The HCND reported to Mine Action Review area reduction of 520,801m².⁴² MAG agreed that it reduced a total of 520,801m² but said the cluster munition-contaminated area reduced through technical survey amounted to 510,506m².⁴³

Table 2: Reduction through technical survey in 2019⁴⁴

Region	Operator	Area reduced (m ²)
Borkou	MAG	510,506
Total		510,506

CLEARANCE IN 2019

Chad cleared cluster munition-contaminated area for the first time in five years in 2019 but how much it released was unclear. Official data put areas released through clearance variously at 4.14km² (reported by the HCND to Mine Action Review)⁴⁵ and 4.3km² (reported in Chad's Article 7 report).⁴⁶ Those figures, however, appear to represent all BAC, rather than solely clearance of CMR. MAG said it cleared a total area of 3,780,512m², of which 837,453m² contained CMR. In the process, MAG destroyed 28 submunitions, the only CMR destroyed in 2019.⁴⁷

ARTICLE 4 DEADLINE AND COMPLIANCE



Chad conducted modest survey and clearance in 2019 which represented significant progress after years without any movement on cluster munitions (see Table 3), but inconsistencies in data prevented a precise determination of the extent.

The absence of any comprehensive or baseline data on the extent of CMR contamination in Chad also prevents a clear understanding of prospects for achieving completion within its Article 4 deadline. Chad needs to accelerate survey and clearance but lacks a clear strategy for optimising deployment of the limited capacity and resources available. A major concern is the future of international donor support. Mine action operations currently depend on a single donor, the EU, and its funding through the PRODECO project, which is due to expire in 2021.

Table 3: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2019	0.84*
2018	0
2017	0
2016	0
2015	0
Total	0.84

* Based on MAG data

-
- 1 Statement of Chad, CCM Signing Conference, Oslo, 3 December 2008.
- 2 Email from Souttani Moussa, Manager/Administrator, National High Commission for Demining (HCND), 27 April 2020.
- 3 Email from Souttani Moussa, HCND, 14 May 2019.
- 4 Email from Souttani Moussa, HCND, 27 April 2020.
- 5 Statement of Chad, CCM Third Meeting of States Parties, Oslo, 13 September 2012.
- 6 CCM Article 7 Report (covering 2013), Form F.
- 7 Statement of Chad, Ninth Meeting of States Parties, Geneva, 2–4 September 2019.
- 8 Article 7 Report (covering 2015), Form H.
- 9 Ibid., Form F; and email from Llewelyn Jones, Director of Programmes, MAG, 31 May 2016.
- 10 Ibid.
- 11 Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, April 2019, p.
- 12 Email from Souttani Moussa, HCND, 14 May 2019.
- 13 Email from Romain Coupey, Country Director, MAG, 4 March 2019.
- 14 Ibid. "Tchad: grève des démineurs restés 10 mois sans salaire", ("Chad: deminers strike after 10 months without pay"), *Agence de Presse Africaine*, 10 May 2017, at: bit.ly/30Cz25g; and email from Julien Kempeneers, HI, 26 September 2017.
- 15 APMBC Article 5 deadline Extension Request, April 2019, p. 10.
- 16 Email from Seydou Gaye, HI, 3 June 2020.
- 17 Emails from Souttani Moussa, HCND, 14 May 2019 and 29 May 2020.
- 18 Email from Seydou Gaye, HI, 3 June 2020.
- 19 Email from Arianna Calza Bini, Head of GMAP division, GICHD, 7 September 2020.
- 20 Email from Daniel Davies, MAG, 21 May 2020.
- 21 Email from Romain Coupey, MAG, 4 March 2019.
- 22 Email from Daniel Davies, MAG, 21 May 2020.
- 23 Email from Moussa Soltani, HCND, 27 April 2020.
- 24 Email from Olivier Shu, Senior Technical Adviser, FSD, 27 March 2020.
- 25 Article 7 Report (covering 2019), Form F.
- 26 HI "Country Profile Chad", September 2017, at: bit.ly/2Sri4nx.
- 27 Ibid.
- 28 APMBC Article 5 deadline Extension Request, April 2019, p. 30.
- 29 Email from HCND, 29 May 2020.
- 30 Email from Moussa Soltani, HCND, 27 April 2020.
- 31 Embassy of France, "Former au déminage et à la lutte contre les engins explosifs improvisés" ("Training in demining and in tackling improvised explosive devices"), Ndjamena, 2019, at: bit.ly/2Xw17Op.
- 32 Email from Seydou Gaye, HI, 3 June 2020.
- 33 Embassy of France, "Training in demining and in tackling improvised explosive devices".
- 34 "Les drones peuvent désormais repérer les mines, annonce Handicap International", *Pixabay*, 8 November 2019.
- 35 Email from Daniel Davies, MAG, 27 April 2020.
- 36 Email from Seydou Gaye, HI, 3 June 2020.
- 37 Email from Olivier Shu, FSD, 27 March 2020.
- 38 Ibid.
- 39 Article 7 Report (covering 2019), Form F.
- 40 Ibid.
- 41 Email from Daniel Davies, MAG, 27 April 2020.
- 42 Email from Moussa Soltani, HCND, 29 May 2020.
- 43 Email from Caroline Bruvler, Programme Officer, MAG, 5 August 2020.
- 44 Ibid.
- 45 Email from Olivier Shu, FSD, 27 March 2020.
- 46 Article 7 Report (covering 2019), Form F.
- 47 Email from Caroline Bruvler, MAG, 5 August 2020.

ARTICLE 4 DEADLINE: 1 JUNE 2021

NOT ON TRACK TO MEET DEADLINE: INTERIM EXTENSION REQUESTED TO 1 JUNE 2022

KEY DATA

CLUSTER MUNITION CONTAMINATION:

NATIONAL ESTIMATE

64.6 KM²

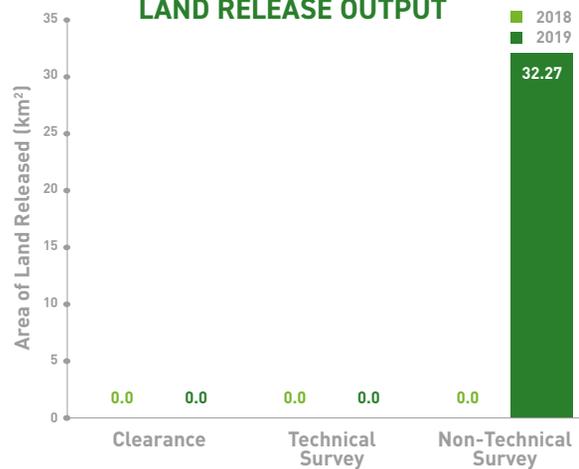
SUBMUNITION
CLEARANCE IN 2019

0 KM²

SUBMUNITIONS
DESTROYED IN 2019

0

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

In 2019, Chile released cluster munition remnant (CMR)-contaminated area for the first time since becoming a State Party to the Convention on Cluster Munitions (CCM) in 2011, cancelling through non-technical survey 32.27km² found not to be contaminated. In July 2020, Chile submitted a revised request for a one-year interim extension to its CCM Article 4 deadline. In its extension request, Chile provided information on the cluster munition-contaminated area and its survey and clearance capacity, detailing a plan to conduct technical survey in 2021, if sufficient resources can be secured. Chile will then submit a follow-on extension request, which will include a plan for clearance.

RECOMMENDATIONS FOR ACTION

- Chile should prioritise and complete the restructuring of its national mine action programme without delay, to ensure that the necessary management structure is in place to support the survey and clearance of CMR-contaminated areas.
- Chile should ensure that it dedicates sufficient resources to complete technical survey by its new interim Article 4 deadline.
- Chile should submit a more detailed annual work plan once technical survey has been completed, including the actual capacity the Army, Navy, and Air Force plan to deploy at each of the four sites per year and annual targets for land release.
- Chile should elaborate a gender and diversity policy and implementation plan.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2019)	Score (2018)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	5	3	Chile conducted non-technical survey in 2019 on the military ranges with cluster munition remnants (CMR) contamination and cancelled approximately one third of the total area. The contamination figure is still likely to be an overestimate as some clearance has already been carried out by the military.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	4	3	The Division of International Relations of the Undersecretary of Defence manages the implementation of the CCM. CMR survey and clearance will be carried out by the explosive ordnance disposal (EOD) units of the Army and Navy, and the recently created Air Force EOD unit. Technical coordination will be the responsibility of the new Defence Disarmament Commission which, as at September 2020, had still to be established. Chile carries out and funds all of its own mine action activities.
GENDER AND DIVERSITY (10% of overall score)	6	6	Chile has taken steps to mainstream gender across the armed forces with women working at all levels of the mine action programme. However, the number of women employed in demining in 2019 was just 4%. Chile should take the next steps and formulate a mine action-specific gender policy.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	6	6	Chile uses the Information Management System for Mine Action (IMSMA) database it updated in 2017. Chile has submitted CCM Article 7 reports annually since 2012. In January 2020, Chile submitted an initial draft Article 4 deadline extension request to 2026, but in July 2020 it submitted a revised request, seeking an interim one-year extension to 2022, for consideration by States Parties at the Second Review Conference.
PLANNING AND TASKING (10% of overall score)	5	3	Chile has a National Plan for Demining and Clearing Military Polygons 2020–26 that includes goals for CMR survey and clearance. Chile included plans for technical survey of CMR-contaminated areas in 2021 in its revised extension request, as well as basic information on its survey and clearance capacity and an estimated budget to complete CMR clearance.
LAND RELEASE SYSTEM (20% of overall score)	5	5	Chile says it is guided by the International Mine Action Standards (IMAS). It has designated survey and clearance responsibility for the CMR-contaminated areas to specific units within the Army, Navy, and Air Force with non-technical survey capacity deployed in 2019.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	4	2	Chile conducted non-technical survey of the CMR-contaminated areas for the first time in 2019, resulting in the cancellation of 32km ² . Chile has stated that technical survey will also be conducted but cautioned that it is resource dependent. It is expected that Chile may be able to fulfil its clearance obligations quicker than expected if the CMR-contaminated area can be further reduced.
Average Score	4.9	3.8	Overall Programme Performance: POOR

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- Division of International Relations, Undersecretary of Defence (Subsecretaría de Defensa, División de Relaciones Internacionales)
- National Demining Commission (Comisión Nacional de Desminado, CNAD)

INTERNATIONAL OPERATORS

- None

OTHER ACTORS

- None

NATIONAL OPERATORS

- Demining Units of the Army Corps of Engineers
- Demining Unit of the Navy Demining Unit of the Air Force

UNDERSTANDING OF CMR CONTAMINATION

Chile reported that at the end of 2019 it had almost 65km² of cluster munition remnant (CMR)-contaminated area in three of its fifteen provinces (see Table 1).¹ This is a huge decrease from the almost 97km² recounted in its previous Article 7 report submitted at the end of March 2019.²

Contamination is the consequence of deployment of cluster munitions on military training ranges. Since the reported extent represents the total area of military land used for training, and cluster munitions were only deployed in the impact areas or target areas, it is very likely that the actual extent of the contamination is still significantly smaller than the revised estimate. Chile has reported that, according to military procedures, clearance of unexploded submunitions or other unexploded ordnance (UXO) present in these areas has been conducted after use so it is unclear how much CMR contamination remains. The contaminated areas remain within military enclosures so are inaccessible to the public. In Arica and Parinacota, MK-II LAR 160 cluster munition rockets were used, while in Tarapacá and Magallanes and Antártica Chilena CB-250K cluster bombs were dropped.³

Table 1: Cluster munition-contaminated area by province (at end 2019)⁴

Province	Military range	SHAs	Area (m ²)
Arica and Parinacota	Pampa Chaca Este	1	30,560,000
Tarapacá	Delta	1	28,291,563
Tarapacá	Barrancas	1	2,669,542
Magallanes and Antártica Chilena	Punta Zenteno	1	3,090,019
Totals		4	64,611,124

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Chile is also affected, to a limited extent, by other UXO. On 27 February 2020, Chile declared itself free of anti-personnel mines, meeting its Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline (see Mine Action Review's *Clearing the Mines 2020* report on Chile for further information).⁵

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The national mine action programme is managed by the National Demining Commission (Comisión Nacional de Desminado, CNAD), which is chaired by the Minister of Defence. Chile's obligations under the CCM have, so far, been the responsibility of the Division of International Relations of the Undersecretary of Defence.⁶ It was initially planned that CNAD would assume responsibility for coordinating the demining units from the Armed Forces that would conduct survey and clearance of CMR. Under national law, however, CNAD may only manage the survey and clearance of anti-personnel mines and it was determined that a new body should be created to coordinate clearance of CMR and other ERW.⁷ A Defence Disarmament Commission (CDD) will be created and will act as an advisory body to the Ministry of Defence and as an inter-ministerial coordinator of Chile's responsibilities under the CCM, the Convention on Certain Conventional Weapons (CCW), and the APMBC. The DDC will have a Disarmament Work Unit (UTD) which will act as the national mine action centre.⁸

Chile is funding all its survey and clearance operations. For 2019, it budgeted approximately US\$205,000 for explosive ordnance disposal (EOD) training and non-technical survey of CMR-contaminated areas.⁹ In its latest Article 7 report and revised Article 4 extension request, Chile is seeking financial assistance of approximately \$1.4 million from the international community to replace and service demining equipment between 2021 and 2023. Chile has stated that it has made this request due to social challenges within Chile, such as those resulting from the COVID-19 outbreak.¹⁰ Chile has estimated that it will require approximately \$10.5 million to complete clearance of CMR. In 2020, no financial resources have been allocated to CMR survey or clearance due to the COVID-19 outbreak. It is hoped that national financial resources will be allocated in January 2021 to conduct technical survey next year, but it is not yet known if this will occur.¹¹

GENDER AND DIVERSITY

While there is no specific gender policy within CNAD, Chile's policy of integrating women into the armed forces has been in place since 2000. As at May 2019, 14.4% of total armed forces personnel were female. In 2016, restrictions on the type of military positions a woman could hold were lifted and legislation was adopted to modify the military grading system, allowing women to be promoted in the same way as men. Women have been working in demining in Chile since 2004 across all types of roles, including as deminers and in managerial/supervisory roles.

In 2007, the first woman was appointed as Manual Demining Section Commander in Arica. In May 2018, a woman was appointed as Demining Company Commander in Arica. Chile has made it easier for women to work in the sector by, for example, adapting demining equipment to better suit female specifications, providing childcare, and eliminating the gender wage gap.¹² Chile reported that in 2019 of the 246 personnel carrying out roles within the demining units ten were women (4%). This included two demining section commanders and four women in support roles (one medic, two nurses and one paramedic).¹³ In a positive step, Chile stated in both its 2020 CCM Article 4 deadline extension requests that due to its awareness of the increasing importance of the implementation of gender perspectives in the field of disarmament, the Ministry of National Defense will promote women to the teams that will conduct CMR clearance.¹⁴

INFORMATION MANAGEMENT AND REPORTING

Since 2003, Chile has been using the Information Management System for Mine Action (IMSMA). During 2017, Chile upgraded to Version 6 of IMSMA after starting the MARS (Mine Action Reporting System) application that replaced IMSMA Mobile. This application has, CNAD says, equipped Chile with high-quality geographic information to support decision-making around clearance.¹⁵ This system was deployed in 2019, along with non-technical survey, to calculate the area of possible CMR contamination.¹⁶

Chile has submitted its CCM Article 7 transparency report every year since 2012. The past two Article 7 reports were the first to contain plans and updates on CMR survey and clearance. In January 2020, Chile submitted a first Article 4 deadline extension request to June 2026. Then in July 2020, Chile submitted a revised, interim request for a one-year extension to June 2022, with a plan to submit another extension request once the estimate of remaining contamination has been established.

PLANNING AND TASKING

Chile stated in its July 2020 extension request that it will conduct technical surveys to further clarify the extent of the remaining CMR contamination during 2021. Chile will then formulate a plan for clearance of CMR that is dependent upon the results of the technical survey.

The four military ranges with CMR contamination are the responsibility of different military EOD units (see Table 2).

Table 2: Military units responsible for the release of CMR-contaminated areas¹⁷

Military range	Unit responsible	Estimated area (m ²)
Pampa Chaca Este	UDH Arica (Army)	30,560,000
Delta	UDH Calama (Army)	28,291,563
Barrancas	UDH FACH (Air Force)	2,669,542
Punta Zenteno	UDH POMTA (Navy)	3,090,019
Total		64,611,124

The National Plan for Demining and Clearing Military Polygons 2020–2026 includes a set of provisions to comply with Chile's obligations under the CCM, the APMBC, and the CCW. The plan is aimed at the implementing partners within the armed forces and government agencies.¹⁸ In its 2019 work plan, the National Directive for the Execution of Demining Activities, Chile included plans for non-technical survey of CMR-contaminated areas.¹⁹

In 2019, Chile trained 20 personnel in EOD Level 2²⁰ and 21 personnel in EOD Level 3²¹ and conducted non-technical survey of the areas suspected to contain CMR.²² Information for the non-technical survey was derived from a desk assessment of military records of cluster bomb deployment and subsequent clearance; interviews with relevant parties; and a visual inspection of the terrain.²³

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Chile is guided by the International Mine Action Standards (IMAS).²⁴ In addition to the IMAS, Chile also follows the provisions and regulations as set out in the "Humanitarian Demining Manual of the Chilean Army" and the "EOD Procedures Manual".²⁵

OPERATORS AND OPERATIONAL TOOLS

Survey and clearance of explosive ordnance is conducted by the EOD Units of the Army Corps of Engineers, the Navy and the Air Force. In 2019, only non-technical survey was conducted, with four units totalling eleven personnel deployed for the purpose.²⁶

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2019

In 2019, Chile deployed four military EOD units to the suspected hazardous areas (SHAs), which cancelled 32.27km² of SHAs through non-technical survey. No clearance of CMR-contaminated area took place.²⁷ In 2018, no survey or clearance of CMR-contaminated area took place.

ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM Chile is required to destroy all anti-personnel mines in mined areas under its jurisdiction or control as soon as possible, but not later than 1 June 2021. It will not meet this deadline and submitted a request in July 2020 for an interim one-year extension to its Article 4 deadline, until 1 June 2022, in which it plans to complete technical survey of CMR-contaminated areas. Chile submitted this interim request due to uncertainty over the availability of financial resources for CMR survey and clearance due to the impact of COVID-19, which has damaged the national economy and diverted resources to other areas. In addition, as at July 2020, Chile was restructuring the national mine action programme, a process that it says will need to be completed before any land release can take place.²⁸

In 2019, for the first time since becoming a State Party to the CCM in June 2011, Chile conducted non-technical survey of the CMR-contaminated area, cancelling approximately one third of the total estimated area. Chile has reported that the military ranges which are contaminated with CMR had previously been cleared following weapons deployment. However, as it is not known whether previous clearance of CMR contamination was conducted according to international standards, Chile is required to undertake technical survey and clearance to meet its Article 4 obligations to make "every effort" to identify and clear all cluster munition-contaminated areas.

Table 3: Five-year summary of CMR clearance

Year	Area cleared (m ²)
2019	0
2018	0
2017	0
2016	0
2015	0
Total	0

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

As at August 2020, Chile had not provided information on whether it had a plan in place for dealing with residual risk following completion. It is expected that this capacity will come from the Chilean military.

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- 1 Article 7 Report (covering 2019), Form F.
 - 2 Article 7 Report (covering 1 May 2018 to 30 March 2019), Form F.
 - 3 Ibid.
 - 4 Article 7 Report (covering 2019), Form F.
 - 5 APMBC Article 7 Report (covering 2018), Form F.
 - 6 Email from Pamela Moraga, Disarmament Affairs, Non-Proliferation and International Security Coordinator, Permanent Mission of Chile to the United Nations (UN) Office in Geneva, 19 September 2018.
 - 7 Revised Article 4 deadline Extension request, July 2020, p. 18.
 - 8 Ibid., p. 20.
 - 9 Revised Article 4 deadline Extension Request, July 2020, p. 7.
 - 10 Article 7 Report (covering 2019), Form I; and Revised Article 4 deadline Extension request, July 2020, p. 19.
 - 11 Revised Article 4 deadline Extension request, July 2020, p. 6.
 - 12 Statement from Chile during the Thematic Discussion on Integrating Gender into Mine Action, APMBC Intersessional Meetings, 23 May 2019; and emails from Col. Juan José López Demuth, Executive Secretary, CNAD, 22 and 27 June 2019.
 - 13 Carlos Rivera Bugueño, Senior Sub-Officer, CNAD, 6 August 2020.
 - 14 2020 Article 4 deadline Extension Request, p. 6; and Revised Article 4 deadline Extension request, July 2020, p. 5.
 - 15 Email from Col. Andres Caceres Cuadra, CNAD, 12 July 2018.
 - 16 Revised Article 4 deadline Extension request, July 2020, p. 4.
 - 17 Ibid., p. 6.
 - 18 Email from Col. Juan José López Demuth, CNAD, 27 June 2019.
 - 19 Email from Col. Juan José López Demuth, CNAD, 22 June 2019.
 - 20 Under IMAS 09:30, this includes the ability to determine when it is safe to move and transport munitions and to conduct simultaneous disposal of multiple items of ordnance.
 - 21 Under IMAS 09:30, this includes the ability to render safe a wider range of munitions.
 - 22 Article 7 Report (covering 2019), Form F.
 - 23 2020 Article 4 deadline Extension Request, Appendix 2, p. 1.
 - 24 Article 7 Report (covering 2018), Form F.
 - 25 Ibid; and Revised Article 4 deadline Extension request, July 2020, p. 6.
 - 26 Email from Carlos Rivera Bugueño, CNAD, 6 August 2020.
 - 27 2020 Article 4 deadline Extension Request, p. 13; and Article 7 Report (covering 2019), Form F.
 - 28 Revised Article 4 deadline Extension request, July 2020, p. 6.

ARTICLE 4 DEADLINE: 1 AUGUST 2020 REPORTED FULFILMENT OF ARTICLE 4 OBLIGATIONS

KEY DATA

CLUSTER MUNITION CONTAMINATION:

COMPLETED CLEARANCE OF ALL
KNOWN CMR-CONTAMINATED AREAS

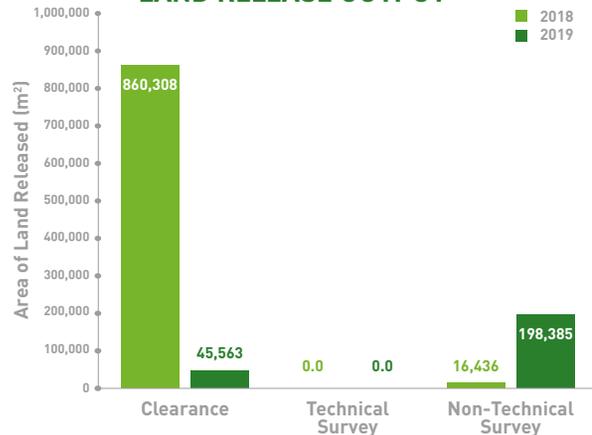
SUBMUNITION
CLEARANCE IN 2019

45,563_{M²}

SUBMUNITIONS
DESTROYED IN 2019

186

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Croatia has reported fulfilling its Convention on Cluster Munitions (CCM) Article 4 obligations, completing clearance of remaining cluster munition remnants (CMR) on 10 July 2020, several weeks ahead of its 1 August deadline. Completion in time was the result of strong national ownership and political will, national funding, and effective planning. While Croatia has cleared all known CMR-contaminated areas, remnants may be discovered post completion (residual contamination), and, as of writing, Croatia was planning for a sustainable capacity and systems to address this possibility.

RECOMMENDATIONS FOR ACTION

- Croatia should ensure that sustainable capacity and systems are in place to address any residual CMR threat that may be discovered.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2019)	Score (2018)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	9	8	On 10 July 2020, Croatia completed clearance of its last known CMR. As recently as 2019, however, areas of previously unrecorded CMR contamination continued to be discovered and Croatia recognises the importance of managing the residual risk from CMR.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	9	9	Croatia demonstrated strong national ownership and political will to complete fulfilment of its Article 4 obligations within its initial 10-year deadline, and with 100% national funding for CMR survey and clearance operations in 2019. In January 2019, Croatian Mine Action Centre (CROMAC) and the Office for Mine Action (OMA) were integrated within the Civil Protection Directorate under the Ministry of Interior.
GENDER AND DIVERSITY (10% of overall score)	4	5	Gender policies and implementation regarding mine action in Croatia are addressed under the national Gender Equality Act, which includes guidelines on gender equality and regulates against gender-based discrimination. However, the proportion of women employed in mine action, both at Civil Protection Directorate – CROMAC and in the commercial demining companies, is extremely low. In addition, CROMAC survey data are not disaggregated by sex and age.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	9	9	Croatia has an information management system that is compliant with the International Mine Action Standards (IMAS) and which allows disaggregation by type of contamination and method of land release. Croatia provided regular, accurate, and consistent updates on its progress in Article 4 implementation at CCM meetings and in its Article 7 reports.
PLANNING AND TASKING (10% of overall score)	9	9	Croatia has elaborated a new national mine action strategy, which it expected to adopt by the end of 2020 to replace the previous strategy that expired in 2019. In addition, Croatia had annual operational work plans for CMR survey and clearance.
LAND RELEASE SYSTEM (20% of overall score)	8	7	The 2015 law on mine action encompasses national mine action standards. CMR clearance in Croatia was focused on confirmed hazardous areas (CHAs) and Croatia maintained sufficient demining capacity to enable it to release remaining known CMR contamination in July 2020, ahead of its Article 4 deadline.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	9	8	On 10 July 2020, Croatia completed clearance of the last known CMR-contaminated area, fulfilling its Article 4 commitments ahead of its 1 August 2020 deadline. In 2019, the Civil Protection Directorate – CROMAC cancelled all remaining cluster munition-contaminated area in Lika-Senj country and a further 45,563m ² was cleared by commercial operators in Sisak-Moslavina county, before completing land release operations in 2020. Croatia is planning how it will deal with residual risk and liability.
Average Score	8.3	7.8	Overall Programme Performance: VERY GOOD

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- Ministry of Interior, in which CROMAC and OMA were integrated within the Civil Protection Directorate, effective as at January 2019

NATIONAL OPERATORS

- Forty-four commercial demining companies are accredited for mine and CMR clearance operations. Of these, five were engaged in CMR clearance operations in 2019: Alfa Razminiranje, Fas, Fas-pro, Fossio, Loco, and Taurus

INTERNATIONAL OPERATORS

- None

OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)

UNDERSTANDING OF CMR CONTAMINATION

Croatia was contaminated with unexploded KB-1 and Mk-1 submunitions by the conflicts in the 1990s that followed the break-up of the Socialist Federal Republic of Yugoslavia.¹ It completed clearance of its last known CMR contamination on 10 July 2020, thereby fulfilling its obligations under Article 4 of the CCM.²

At the end of 2019, Croatia had only three remaining confirmed hazardous areas (CHAs) containing CMR, covering a total area of 33,079m², across four counties (see Table 1).³ This compared to reported contamination a year earlier of less than 266,116m².⁴ During 2019, the county of Lika-Senj was declared free of CMR, through non-technical survey by the Civil Protection Directorate – CROMAC.⁵ All remaining cluster munition-contaminated area was then released in 2020, ahead of Croatia's 1 August 2020 deadline. However, small areas of previously unrecorded CMR contamination continue to be discovered, such as the 10,911m² of previously unrecorded CMR contamination added to the database in 2019, and Croatia recognises the possibility of further unforeseen CMR findings.⁶

Table 1: Cluster munition- contaminated area by county (at end 2019)⁷

County	CHAs	Area (m ²)
Šibenik-Knin	1	19,551
Sisak-Moslavina	1	10,952
Zadar	1	2,576
Totals	3	33,079

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Croatia is heavily contaminated by unexploded ordnance (UXO) other than submunitions and by anti-personnel mines (see Mine Action Review's *Clearing the Mines 2020* report on Croatia for further information on the mine problem).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

In August 2018, the Croatian government formally concluded that some 54 government agencies, including Croatian Mine Action Centre (CROMAC) and the Office for Mine Action (OMA), were to be integrated within existing state administration bodies. This was formally concluded through two pieces of legislation enacted in December 2018 and which entered into force on 1 January 2019.⁸ As a consequence of these laws, CROMAC and OMA ceased to exist as separate government entities and CROMAC became an "operational sector" within the Civil Protection Directorate, under the Ministry of Interior.⁹ The main rationale for this was said to be "the establishment of a more relevant and operationally wider national institution (Civil Protection Directorate) that could more efficiently and effectively tackle all of the aspects of civil protection in the Republic of Croatia, including mine action activities".¹⁰

Prior to 2019, both CROMAC (established in 1998 as the umbrella organisation for mine action coordination),¹¹ and the OMA (created in 2012 as a government focal point for mine action),¹² had operated as independent entities.

A new law on mine action was adopted by the Croatian parliament on 21 October 2015.¹³ While the 2015 Law, which was initiated by the OMA with the text drafted by the Ministry of Interior, marked an improvement in certain respects (for instance, by permitting land release through technical survey), there were concerns that the new law would impede efficient and effective mine action.¹⁴

Regarding accreditation, the Ministry of Interior now provides three separate permits: approval for manual mine detection; approval for mechanical mine detection; and approval for operations by mine and explosive detection dogs (MDDs and EDDs). This replaces the former unified accreditation licence.¹⁵

In 2019, some €70,000 was spent on survey and clearance of CMR-contaminated area. Funding for CMR land release operations is said to have been fully resourced in Croatia's annual demining plan.¹⁶

GENDER AND DIVERSITY

As an integral part of the Ministry of Interior, the Civil Protection Directorate implements the Gender Equality Act (Official Gazette 82/08 and 69/17), which establishes national guidelines for gender equality, regulates against gender-based discrimination, and creates equal opportunities for men and women, including with regard to employment.¹⁷

According to the national authorities, women, men, boys and girls are all effectively consulted during survey and community liaison activities.¹⁸ CROMAC survey data are not, however, disaggregated by sex and age.¹⁹

Within the Civil Protection Directorate of the Ministry of Interior, CROMAC employs 91 people, of whom 12 (13.2%) are women. As at April 2020, no women were employed in managerial or supervisory level positions in CROMAC. Furthermore, CROMAC's 27 deminers and 2 auxiliary workers were all men.²⁰

As at 30 March 2020, there were 45 accredited commercial demining companies, employing 443 deminers. Only six deminers (1.4%) were female and of the 131 work-site leaders/deminers, just one was a woman. Of the 78 auxiliary workers, 6 (7.7%) were female.²¹

INFORMATION MANAGEMENT AND REPORTING

For the purpose of information management, CROMAC established a mine information system (MIS), which is said to be compliant with the International Mine Action Standards (IMAS) and customised to meet CROMAC's needs. The MIS uses databases and a geographic information system (GIS) to deliver a fully integrated information management system.²²

Croatia submitted accurate and consistent annual Article 7 transparency reports and provided valuable updates on its progress in Article 4 implementation at the CCM meetings of States Parties.

PLANNING AND TASKING

Croatia's national mine action strategy for 2009–19 was drafted by CROMAC with the agreement of concerned ministries, the OMA, the National Protection and Rescue Directorate, and local administration and self-administration bodies whose responsibility covers regions with hazardous areas.²³ The strategy, which was adopted by the Croatian Parliament, included among its main goals the completion of mine clearance by 2019, which was not achieved.²⁴

The Ministry of Interior has elaborated a new strategy, covering 2020–26 which it expected to be adopted by the Croatian Parliament by the end of 2020, assuming no unforeseen events.²⁵

Based on approved funding, the Civil Protection Directorate – CROMAC drafts annual work plans, which are submitted to the responsible ministries and other State bodies for comment and approval.²⁶ All CMR-contaminated areas were said to be cleared in accordance with county and State priorities.²⁷

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

The 2015 law eliminated the need for standing operating procedures (SOPs), as all aspects of mine action were defined in detail.²⁸ National mine action standards are also encompassed within it.²⁹

CMR clearance in Croatia was focused on releasing CHAs. In 2019, submunitions were discovered and destroyed in all CMR-contaminated areas that were cleared.³⁰

OPERATORS AND OPERATIONAL TOOLS

Non-technical survey in Croatia is conducted by the Civil Protection Directorate – CROMAC. In 2019, it had one non-technical survey team with two personnel, for survey of cluster munition-contaminated areas.³¹ In 2018, CROMAC had deployed nine non-technical survey personnel.³² The decrease was the result of personnel employed by CROMAC not being taken on by the Ministry of Interior following CROMAC's integration within the Civil Protection Directorate at the start of 2019. Some of the survey personnel previously employed by CROMAC were retired or moved to other companies.³³

In 2019, 44 commercial companies were accredited to conduct mine and CMR clearance.³⁴ Of this, five companies were engaged in CMR clearance operations in 2019 (see Table 2).³⁵ Non-governmental organisations (NGOs) are barred from competing for commercial tenders as CROMAC views their subsidy by other funds as unfair.³⁶

Table 2: Clearance capacity (at end 2019)³⁷

Operator	Manual teams	No. of deminers
Alfa Razminiranje	1	9
Fas	2	18
Fossio	1	9
Loco	1	9
Taurus	1	7
Totals	6	52

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2019

A total of 243,948m² of CMR-contaminated area was released in 2019, of which 45,563m² was cleared and 198,385m² was cancelled through non-technical survey. No CMR-contaminated area was reduced through technical survey in 2019. In addition, almost 10,911m² of previously unrecorded CMR contamination was added to the database in 2019.³⁸

Croatia completed clearance of all known CMR contamination on 10 July 2020.³⁹

SURVEY IN 2019

In 2019, 198,385m² was cancelled through non-technical survey in Lika-Senj county (see Table 3), resulting in the county becoming free of CMR. This was a significant increase on 2018, when 16,436m² of CMR-contaminated area was cancelled by non-technical survey.⁴⁰ No CMR-contaminated area was reduced through technical survey in 2019 or 2018.⁴¹

In addition, 10,911m² of previously unrecorded CMR contamination was added to the database in 2019.⁴²

Table 3: Cancellation through non-technical survey in 2019⁴³

County	Operator	Area cancelled (m ²)
Lika-Senj	Civil Protection Directorate - CROMAC	198,385
Total		198,385

Cancellation through non-technical survey in 2019 was the result of comprehensive analysis of the location of previous CMR and containers in the surrounding area, which were precisely defined, in addition to new information and data collected in the local community.⁴⁴

CLEARANCE IN 2019

In 2019, Croatia cleared 45,563m² of CMR-contaminated area in Sisak-Moslavina county, destroying 186 KB-1 submunitions and 1 other item of UXO (see Table 4).⁴⁵ This was a significant decrease in output on 2018, when 860,308m² of CMR-contaminated area was cleared, destroying a total of 571 KB-1 submunitions.⁴⁶

Table 4: CMR clearance in 2019⁴⁷

County	Operator	Area cleared (m ²)	Submunitions destroyed
Sisak-Moslavina	Alfa Razminiranje, Fas, Fas-pro, Fossio, Loco, and Taurus	45,563	186
Totals		45,563	186

All cluster munition-contaminated areas cleared in 2019 were found to have CMR.⁴⁸

As part of explosive ordnance disposal (EOD) spot tasks and the continued "less arms, fewer tragedies" programme, the Croatian police (under the Ministry of Interior), and in partnership with the UNDP, also collected 12 submunitions, 103 anti-personnel mines, and 38 anti-vehicle mines, along with items of UXO and abandoned explosive ordnance. All munitions were transported to Croatian military facilities and destroyed.⁴⁹

PROGRESS IN 2020

Clearance of all remaining known CMR contamination was completed on 10 July 2020.⁵⁰ Detailed results of survey and clearance in 2020 have not yet been provided.

ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR CROATIA: 1 AUGUST 2010



ARTICLE 4 DEADLINE: 1 AUGUST 2020

REPORTED HAVING FULFILLED ARTICLE 4 OBLIGATIONS ON 10 JULY 2020

Croatia completed CMR clearance on 10 July 2020, fulfilling its obligations under Article 4 of the CCM, three weeks ahead of its 1 August 2020 deadline. In its communiqué to the Implementation Support Unit of the CCM, dated 31 July 2020, Croatia said that "due to the pandemic COVID-19, the Declaration of Compliance is still being finalized and will be officially transmitted at a later stage".⁵¹

Croatia cleared a total of approximately 3.55km² of CMR-contaminated area over the past five years (see Table 5). Challenges to CMR clearance were posed by rocky, forested, and mountainous areas, which prevented use of demining machines. In addition, use of demining machinery is not permitted in areas designated as protected for conservation.⁵²

Table 5: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2019	0.05
2018	0.86
2017	1.01
2016	1.20
2015	0.43
Total	3.55

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

In 2019, the Civil Protection Directorate continued research cooperation and discussions with the Geneva Centre for Humanitarian Demining (GICHD) on the issue of national survey and clearance capacity to address explosive ordnance discovered after the release of contaminated areas or post completion (i.e. residual contamination). In August 2019, a joint study entitled "National capacities and residual contamination in Croatia" was published, documenting progress so far and highlighting the importance of a participatory and transparent long-term strategic planning progress.⁵³ The integration of CROMAC within the Ministry of Interior, which took effect from January 2019, is reported to be one of the first steps to deal with residual risk and liability, and it is believed that this will elevate the importance of the issue within the Ministry of Interior.⁵⁴ The integration also means that the challenge of residual risk will be handled within the responsibilities of the Ministry of Interior – Police Directorate EOD teams and the Civil Protection Directorate – CROMAC.⁵⁵

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- 1 Article 7 Report (covering 2017), Form F.
- 2 Written communiqué by Croatia to the CCM Implementation Support Unit, 31 July 2020.
- 3 Email from Slavenka Ivšić, Head of Unit, Civil Protection Directorate, Ministry of the Interior, 8 April 2020; and CCM Article 7 Report (covering 2019), Form F.
- 4 Email from Slavenka Ivšić, Civil Protection Directorate, 23 May 2019; and Article 7 Report (covering 2018), Form F.
- 5 Article 7 Report (covering 2019), Form F.
- 6 Emails from Slavenka Ivšić, Civil Protection Directorate, 23 May 2019 and 8 April 2020; and Article 7 Report (covering 2019), Form F.
- 7 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020; and Article 7 Report (covering 2019), Form F.
- 8 Act on Amendments to the Act on Mine Action (OG No. 118/2018) and Act on Amendment to the Act on the Government (OG No. 116/2018).
- 9 Emails from Slavenka Ivšić, Civil Protection Directorate, 23 May 2019 and 8 April 2020; and Article 7 Report (covering 2018), Form J; and Article 7 Report (covering 2019), p. 1.
- 10 Article 7 Report (covering 2019), Section 4.1.
- 11 CROMAC, "National Mine Action Strategy of Croatia 2009–2019", Zagreb, June 2009, p. 2.
- 12 Interviews with Dijana Pleština, (then) Director, OMA, in Geneva, 23 May 2012 and 10 April 2014; and email from Miljenko Vahtarić, CROMAC, 4 July 2013.
- 13 OG No. 110/15; and Article 7 Report (covering 2017), Form A.
- 14 Interviews with Neven Karas, CROMAC; and Tomislav Ban, Assistant Director and Head of Sector for Operational Planning and Programming, CROMAC, Sisak, 18 May 2017.
- 15 Email from Miljenko Vahtarić, CROMAC, 24 August 2016.
- 16 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020; Article 7 Report (covering 2019), Form I.
- 17 Article 7 Report (covering 2017), Form C; Statement of Croatia, APMBC Intersessional Meetings, Geneva, 7 June 2018; and email from Davor Laura, CROMAC, 6 April 2018.
- 18 Ibid.
- 19 Email from Slavenka Ivšić, Civil Protection Directorate, 17 April 2020.
- 20 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020.
- 21 Ibid.
- 22 CROMAC website, "CROMAC's Mine Information System", accessed 26 June 2018.
- 23 2018 APMBBC Article 5 deadline Extension Request, p. 25.
- 24 Convention on Certain Conventional Weapons (CCW) Protocol V Article 10 Report (covering 2015), Form B.
- 25 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020; and Article 7 Report (covering 2019), Section 4.6.
- 26 Email from Slavenka Ivšić, Civil Protection Directorate, 23 May 2019.
- 27 Emails from Miljenko Vahtarić, CROMAC, 10 June 2015; and Slavenka Ivšić, Civil Protection Directorate, 23 May 2019.
- 28 Email from Miljenko Vahtarić, CROMAC, 13 May 2016; and Article 7 Report (covering 2015), Form A.
- 29 Email from Miljenko Vahtarić, CROMAC, 13 May 2016.
- 30 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020.
- 31 Ibid.
- 32 Email from Slavenka Ivšić, Civil Protection Directorate, 23 May 2019.
- 33 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020.
- 34 Ibid; and APMBBC Article 7 Report (covering 2019), Section 4.1.
- 35 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020.
- 36 Interview with Miljenko Vahtarić, CROMAC, Sisak, 14 April 2014.
- 37 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020; and APMBBC Article 7 Report (covering 2019), Section 4.1.
- 38 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020.
- 39 Written communiqué by Croatia to the CCM Implementation Support Unit, 31 July 2020.
- 40 Email from Slavenka Ivšić, Civil Protection Directorate, 23 May 2019; and Article 7 Report (covering 2018), Form F.
- 41 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020; and Article 7 Report (covering 2019), Form F.
- 42 Ibid.
- 43 Ibid.
- 44 Article 7 Report (covering 2019), Form F.
- 45 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020; and Article 7 Report (covering 2019), Form F.
- 46 Email from Slavenka Ivšić, Civil Protection Directorate, 23 May 2019; and Article 7 Report (covering 2018), Form F.
- 47 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020; Article 7 Report (covering 2019), Form F.
- 48 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020.
- 49 Ibid.; Article 7 Report (covering 2019), Form F.
- 50 Written communiqué by Croatia to the CCM Implementation Support Unit, 31 July 2020.
- 51 Written communiqué by Croatia to the CCM Implementation Support Unit, 31 July 2020.
- 52 Email from Slavenka Ivšić, Civil Protection Directorate, 23 May 2019.
- 53 GICHD, "National capacities and residual contamination in Croatia", August 2019, at: bit.ly/2EwKcTt.
- 54 Emails from Slavenka Ivšić, Civil Protection Directorate, 23 May 2019 and 8 April 2020.
- 55 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020.

GERMANY



CLEARING CLUSTER MUNITION REMNANTS 2020

ARTICLE 4 DEADLINE: 1 AUGUST 2025
UNCLEAR WHETHER ON TRACK TO MEET DEADLINE

KEY DATA

CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

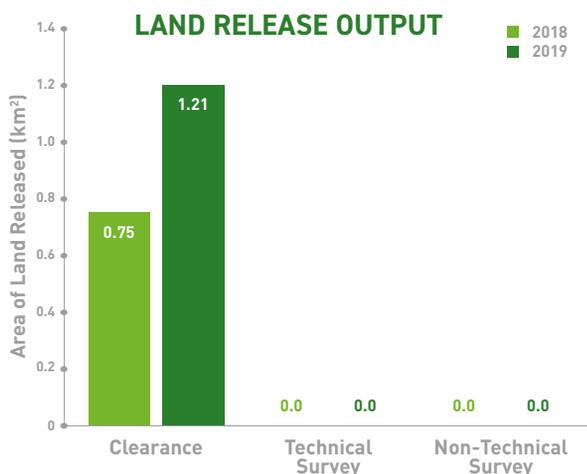
8.56 KM²

SUBMUNITION CLEARANCE IN 2019

1.21 KM²

SUBMUNITIONS DESTROYED IN 2019

1,814



KEY DEVELOPMENTS

In 2019, Germany made solid process in clearance of cluster munition remnants (CMR) at the former military testing facility at Wittstock. Working with a capacity of 120 personnel, 1.21km² of contaminated area was cleared in 2019, a 60% increase on output in the previous year. In addition to submunitions, the site is also contaminated with a range of other explosive ordnance which has to be cleared along with the CMR.

RECOMMENDATIONS FOR ACTION

- Germany should assess ways in which it can speed up release of cluster munition-contaminated area, to ensure that it fulfils its Convention on Cluster Munitions (CCM) Article 4 obligations before its extended deadline of 1 August 2025. This could involve amending national legislation to allow international contractors to conduct clearance more quickly.
- For ease of reference, Germany should ensure that its annual Article 7 transparency report includes the amount of CMR contamination remaining at the end of the reporting period and the annual clearance output, rather than (or in addition to) the original CMR contamination and the cumulative clearance output.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2019)	Score (2018)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	8	8	Germany has a good understanding of the extent of its sole CMR-contaminated area in a former Soviet military training area at Wittstock in the east of the country. Due to the lack of detailed data on the former testing of weapons at the site, and the significant amount of other unexploded ordnance (UXO), Germany has not been able to more accurately determine the extent and density of CMR.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	8	8	There is now strong national ownership and commitment to release the sole CMR-contaminated area. Roles and responsibilities for clearance are clear, coherent, and entirely funded by the federal government, albeit at a relatively high cost. German law prevents the contracting of overseas commercial clearance operators or non-governmental organisations (NGOs) for CMR clearance.
GENDER AND DIVERSITY (10% of overall score)	7	7	There is equal access to employment for qualified women and men for explosive ordnance disposal (EOD), including of CMR, though women only make up a small proportion of the sector in Germany, particularly in EOD positions. At Wittstock, two women hold an EOD licence, and a further eight female UXO specialists are engaged operationally – an increase on the previous year. The on-site project management and clearance supervision company employs one female engineer and three male engineers.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	7	6	Germany has reported on progress to survey and clear CMR contamination in both its Article 7 reports and in its Article 4 deadline extension request. The request submitted and granted in 2019 was of a high quality, with clear annual milestones for clearance, through to Article 4 completion. However, in its Article 7 reporting, Germany should reduce the annual contamination baseline of CMR contamination, which has remained at 11km ² for several years, to reflect land released annually clearance as work progresses. In addition, Germany should report annual clearance output in its Article 7 reporting, as the CCM requires, and not solely cumulative clearance output to date.
PLANNING AND TASKING (10% of overall score)	8	8	Germany has a completion plan in place to address the remaining CMR contamination, with realistic annual clearance goals, based on forecast capacity and output.
LAND RELEASE SYSTEM (20% of overall score)	7	7	Germany is restricted from conducting technical survey or from using mechanical assets, due to the high level of explosive ordnance contamination at the site, which includes different types of UXO, with varying spatial distribution of contamination, resulting from overlapping contamination from multiple weapon types.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	6	5	In 2019, Germany requested and was granted a five-year extension to its Article 4 clearance deadline until 1 August 2025. It plans to complete CMR clearance before the end of 2024, based on existing capacity and subject to available burnt area for clearance, favourable weather conditions, and the density of the contamination discovered. In 2019, it cleared 1.21km ² , a 60% increase on the previous year, but still below the annual target in its Article 4 deadline extension request.
Average Score	7.2	6.9	Overall Programme Performance: GOOD

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- The Wittstock site is administrated and project managed by the Federal Forestry Agency as a subdivision of the Institute for Federal Real Estate (BImA), with support from the Central Office of the Federal Government for UXO Clearance and a consulting engineer.

NATIONAL OPERATORS

- Commercial UXO clearance contractors: Röhl Munitionsbergung GmbH (Brandenburg (Havel)) and Schollenberger Kampfmittelbergung GmbH (Celle)
- On-site project management/clearance supervision company
- Destruction of CMR and other ordnance is the ultimate responsibility of the Brandenburg state explosive ordnance disposal (EOD) agency: KMBD.

INTERNATIONAL OPERATORS

- None

OTHER ACTORS

- None

UNDERSTANDING OF CMR CONTAMINATION

As at the end of 2019, Germany reported 8.56km² of remaining cluster munition-contaminated area at a former Soviet military training area at Wittstock, Brandenburg, in former East Germany.¹

In its latest Article 7 transparency report, covering calendar year 2019, Germany reported approximately 11km² of area suspected to contain CMR, unchanged from the original contamination level, despite clearance in 2017–19. However, while Germany did not specify the amount of remaining CMR contamination as at the end of 2019 in its Article 7 report, as required under the CCM, it did report the cumulative CMR clearance output at Wittstock to-date (2.44km²), allowing calculation of the remaining contaminated area as at the end of 2019.²

A wide range of Soviet-era submunitions have been found at Wittstock: AO-1 SCh, AO-1 M, AO-2.5, AO-2.5 RTM, AO-10 SCh, ShOAB-0.5, PTAB-1, PTAB-1 M, PTAB-2.5 M, PTAB 2.5 TG, PTAB-10.5, ZAB 1-E, ZAB 2.5M, ZAB 2.5 S, and ZAB 2.5.³

CMR were discovered "by chance" at Wittstock and declared in June 2011, first at the Anti-Personnel Mine Ban Convention (APMBC) intersessional meetings and then a week later at the CCM intersessional meetings.⁴ From 2011 to early 2014, suspected CMR contamination was reported to total 4km².⁵ In August 2014, however, Germany reported that the total suspected hazardous area (SHA) was actually 11km².⁶ The increased estimate was ascribed to discovery of submunitions during non-technical survey across a wider area than previously reported.⁷ According to Germany, the dense vegetation cover and the special hazards posed by CMR and other explosive ordnance did not allow for technical survey.⁸

The entire Wittstock site, which extends over 120km², is heavily contaminated with various kinds of unexploded ordnance (UXO), in varying special distribution and overlapping contamination, as a result of use of the site for military training purposes in 1945–93.⁹ The 11km² of CMR contamination is in the area of a mock airfield within the site, which was used by the air force for bombing practice; by the army for artillery firing exercises; as well as for general military exercises and training. Usage involved a wide range of munitions over a period of four decades. Only general information on historical use of cluster munitions at the site is available and the degree of contamination from submunitions and other UXO is not known for a large part of the hazardous area.¹⁰

In early October 2011, ownership of Wittstock was transferred from the military to the federal government authority in charge of real estate, Institute for Federal Real Estate (BlmA). BlmA implemented a risk education programme that included marking the perimeter and preventing civilian access to the area, based on a "danger prevention plan".¹¹ Once safely released, the site is due to remain part of a "nature protection area" in the Kyritz-Ruppiner-Heide, managed by BlmA as part of the Europa NATURA 2000 site, under the European Union (EU) Habitats Directive.¹²

Persistent delay in initiating clearance of CMR at Wittstock until March 2017¹³ was ascribed to extensive preliminary work needed to prepare the area for CMR clearance. Due to the dense vegetation in the contaminated area, Germany opted to burn the area in sections, to ensure an unobstructed view of the ground.¹⁴ Preparation for burning and clearance in turn necessitated a desk study and creation of an evacuation and access road network in 2013–15, to make the SHA accessible for clearance operators.¹⁵

This was followed in 2015–16 by the creation and maintenance of an internal site-wide system of firebreaks surrounding and subdividing the area suspected to be contaminated with CMR, to prevent uncontrolled forest fires during prescribed burning of the CMR-contaminated area.¹⁶ Owing to contamination from large items of UXO, the fire-breaks were created using an unmanned, remote-controlled caterpillar by an explosive ordnance disposal (EOD) contractor in 2016.¹⁷ This was completed in 2016, with the exception of a small forested area on the eastern edge of the SHA.¹⁸ In total, 14 ShOAB-0.5 explosive submunitions were discovered during site preparation, which lasted until the end of 2016.¹⁹

The prescribed burning of the first sections of the SHA started in 2017 and will continue periodically to prepare land for clearance. It requires special meteorological conditions to keep the fire under control, and, as such, prescribed burning can only take place on a few days each year.²⁰

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Germany has full national ownership of its land release efforts. The Wittstock site is administrated and project managed by the Federal Forestry Agency as a subdivision of the BlmA. The BlmA is an institution incorporated under public law and which is wholly owned by the federal government.²¹ The Federal Forestry Agency's responsibilities include project coordination and control, risk management, and budget planning. Support is provided by the Central Office of the Federal Government for UXO Clearance and a consulting engineer.²² Commercial UXO clearance contractors are contracted and managed by the local branch of the Federal Forestry Agency, Bundesforstbetrieb Westbrandenburg.²³ The Regulatory Agency of the County of Ostprignitz-Ruppin is responsible for public security under the police law of the federal state of Brandenburg.²⁴

In Germany, the clearance and disposal of UXO is a security task that is under the control of the police and administrative legislation and is therefore the responsibility of the respective federal states. Almost all federal states have set up a corresponding state agency for EOD for these tasks. In Brandenburg, this is the KMBD (an abbreviation for, in English, the Brandenburg state war material disposal service), which is part of the Brandenburg police. Under German legislation, the federal government is not allowed to maintain an agency for EOD.²⁵ Contracting foreign companies for CMR clearance in Wittstock is also not possible under German law.²⁶ This limits Germany's ability to upscale demining capacity by preventing the contracting of non-governmental organisations (NGOs) or overseas commercial expertise.

All CMR clearance costs are, though, paid for by the federal BImA. National funding to complete CMR clearance has been fully secured and is said to cover unforeseen cost increases. Clearance costs were expected to increase from 2021, due to price inflations expected as part of the new tender planned for commercial UXO clearance.²⁷ CMR clearance costs have increased from more than €1.6 million in 2017, to over €9.5 million in 2018, and over €11.5 million in 2019,²⁸ reflecting the upscaling of clearance operations. As at October 2018, total forecasted clearance costs to address CMR contamination at Wittstock were estimated to be more than €67 million, of which €60 million was budgeted for clearance by commercial contractors; €3 million for engineering costs; and €4.3 million for the disposal of ordnance.²⁹

GENDER AND DIVERSITY

There is equal access to employment for qualified women and men for EOD clearance in Germany, but women only make up a small proportion of the sector, especially in terms of the number of qualified female EOD technicians with a licence for commercial EOD, who reportedly number fewer than 10.³⁰ At Wittstock, two women hold an EOD licence (required under the state law on explosives), and a further eight were working operationally as UXO specialists in 2019 (up from one woman holding a licence and 5 female UXO specialists working operationally in 2018).³¹ The on-site project management and clearance supervision company employs four engineers: one woman and three men.³²

INFORMATION MANAGEMENT AND REPORTING

Germany uses its own information management system to record the special distribution of CMR, including use of a geographical information system (GIS).³³

Germany provides regular updates on its progress in Article 4 implementation, both in its annual Article 7 reports and in statements at the Meeting of States Parties. However, in its Article 7 report for 2019,³⁴ Germany again reported cumulative clearance output for 2017–19, rather than the annual clearance output for the year, as the Convention requires.

Germany submitted a detailed, comprehensive, and timely Article 4 deadline Extension Request, which was considered and granted by States Parties at the Ninth Meeting of States Parties in September 2019. The request detailed progress in addressing CMR contamination, identified the extent of contamination remaining, and included a detailed and costed work plan covering the additional time sought, with measurable benchmarks for the extension period.

PLANNING AND TASKING

Germany has developed a national plan for the release of the CMR-contaminated area, as detailed in its extension request, with annual milestones for the release of areas confirmed or suspected to contain CMR. Based on current clearance projections of 1.5–2km² per year, CMR clearance is currently expected to be completed by the end of 2024, with associated documentation to be finalised in 2025.³⁵

A project coordination committee meets on a weekly basis with its core members and monthly with an extended group, to assess the status of clearance progress as well as the quality of clearance, costs, and milestones compared to the project plans. Fortnightly reports are disseminated to document clearance and progress.³⁶

Nature conservation requirements limit the controlled burning to a maximum of 200–300 hectares (2–3km²) annually, which, for safety reasons, is limited to few days per year. Germany plans to burn approximately 250 hectares (2.5km²) per year, to build up a reserve of burnt areas for clearance.³⁷ In 2019, an adequate amount of heathland was burned, to guarantee sufficient area for CMR clearance operations in 2020 and 2021.³⁸

Germany planned to clear some 1.2–1.4km² of CMR-contaminated area in 2020.³⁹ Detailed planning of the specific sections of the CMR-contaminated area to be cleared is not possible beyond annual planning, because it is determined by the location of areas that have been burnt, which in turn is contingent on weather conditions on the day of burning.⁴⁰

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

CMR clearance in Germany is conducted in accordance with German federal legislation and legislation of the state of Brandenburg, occupational safety standards of the German Statutory Accident Insurance Association (Deutsche Gesetzliche Unfallversicherung, DGUV), and the construction technical guidelines on UXO clearance of the federal government (Baufachlichen Richtlinien Kampfmittelräumung des Bundes). According to Germany, federal and state legislation is binding and takes precedence over the application of international health and safety or technical standards.⁴¹

The “Guidelines for the Clearance of Unexploded Ordnance on Federal Properties” are the legal basis for the clearance of UXO on federal government properties and thus apply to action on the Wittstock site. In addition, site-specific work instructions, approved by the KMBD, include detection of UXO (instruments and their use); handling of submunitions and other UXO (on-site transport, storage, and disposal); and documentation.⁴²

The entire area suspected to be contaminated with CMR has been divided into 50 x 50 metre boxes, each of which is subject to prescribed burning, followed by sub-surface clearance.⁴³ CMR clearance started in an area where the occurrence of CMR was known from earlier finds, and was conducted outwards in 50 x 50 metre boxes. According to Germany, to date CMR have been found in almost every parcel cleared, and therefore technical survey has not been deemed useful thus far. Germany has declared that if, during future clearance, areas are often encountered which do not contain CMR, the method of land release will be changed to technical survey.⁴⁴ The smallest target for detector sensitivity for clearance has been defined as a half sphere of a ShOAB-0.5 submunition.⁴⁵

Under state regulation on war material (“Kampfmittelverordnung”), the transport and disposal of explosive ordnance in Brandenburg state is the sole responsibility of the KMBD.⁴⁶

OPERATORS AND OPERATIONAL TOOLS

In Germany, site clearance (search, discovery, identification, recovery, and preparation for handover to state agencies for demolition) is typically conducted by commercial contractors that meet the requirements of the law on explosives. There are reportedly only around 1,500 people working in commercial ordnance clearance in Germany; mostly small enterprises, which are active regionally.⁴⁷ Two commercial UXO clearance contractors won the public tender for CMR clearance at Wittstock: Röhl Munitionsbergung GmbH (Brandenburg (Havel)) and Schollenberger Kampfmittelbergung GmbH (Celle). On-site project management and supervision are provided by a separate company, which includes a consulting engineer.⁴⁸ As previously mentioned, disposal, whether through destruction or other means, is conducted by the KMBD.⁴⁹

CMR clearance commenced at Wittstock in March 2017, with nine personnel, which increased to forty in the summer of 2017, and to one hundred in April 2018. As of June 2018, capacity stood at 120 personnel, with an average daily clearance rate per person of between 50m² and 60m².⁵⁰ Capacity as at the end of 2019 remained at 120 personnel.⁵¹

There are staff shortages for deminers in Germany, in particular for the specially licenced team leaders required by German law.⁵² The 150 demining personnel planned for deployment at Wittstock represent around 10% of the overall EOD personnel available in Germany.⁵³ In its Article 4 deadline extension request, Germany has assumed an annual effective clearance capacity of 140 demining personnel, who will each work 225 days a year.⁵⁴ While the current capacity of 120 is a significant increase since demining operations first started in 2017, it is still less than 140 personnel clearance capacity projected in Germany’s extension request.⁵⁵ Germany did, however, expect to bring on board additional clearance personnel in 2020, increasing capacity to 135 deminers and then up to 140.⁵⁶

Subsurface CMR clearance at Wittstock is conducted only manually. According to federal guidelines, while mechanical clearance would be possible for clearance of CMR, it is not possible at Wittstock due to the presence of large quantities of air-dropped and shaped-charge munitions, which would pose a hazard to both the operators and the equipment.⁵⁷

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2019

A total of 1.21km² of CMR-contaminated area was cleared in 2019, with the destruction of 1,814 submunitions, all detonated in situ. No area was released by survey.⁵⁸

SURVEY IN 2019

No CMR-contaminated area was cancelled through non-technical survey or reduced through technical survey in 2019 or in the previous year.⁵⁹

CLEARANCE IN 2019

Germany cleared 1.21km² of CMR-contaminated area in 2019 and destroyed 1,814 submunitions.⁶⁰ Clearance output in 2019 was a significant increase on the previous year, when 0.76km² of CMR-contaminated area was cleared and 1,537 submunitions destroyed.⁶¹ The increase is due to a continued increase in personnel during 2018, which then remained constant throughout 2019.⁶²

Of the 1.21km² cleared in 2019, nearly 0.36km² was cleared by Röhl Munitonsbergung (Brandenburg (Havel)) and more than 0.85km² by Schollenberger Kampfmittelbergung GmbH (Celle). In addition to the 1,814 submunitions destroyed, 16,780 items of other UXO (grenades, rockets, fuses, etc.) and 18 metric tons of fragments were also found and destroyed during CMR clearance operations in 2019.⁶³

CMR clearance is subject to internal quality control (QC) by the commercial contractors and to external quality control by an independent engineering company of between 10% and 20% of each 50 x 50 metre clearance box.⁶⁴

ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM, Germany is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than its extended deadline of 1 August 2025. Germany has said that it is on track to complete CMR ahead of its Article 4 deadline.⁶⁵

After extensive and lengthy preliminary work for preparation of the site for clearance, including survey and a creation of a fire protection system, Germany finally began CMR clearance in March 2017. A total of 2.44km² of CMR contamination has been cleared since clearance of CMR contamination at Wittstock commenced (see Table 1).

Table 1: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2019	1.21
2018	0.76
2017	0.47
2016	0
2015	0
Total	2.44

Germany predicts it will take between five years (meaning completion of clearance in 2023) and six years (completion of clearance in 2024), based on the estimated 980 hectares (9.8km²) of remaining CMR contamination as at the end of 2018, and an estimated annual clearance capacity of 140 personnel, working 225 days per annum, at a clearance rate of 50–60m² per person per day. This corresponds to clearance of 1.5–2km² per annum. Reporting and documentation relating to clearance efforts are predicted to be finalised in 2025.⁶⁶

While clearance output of 1.21km² in 2019 was a significant increase on the previous year, when 0.76km² was cleared, it still fell short of Germany's planned clearance output, indicating that Germany may be falling behind target on its planned Article 4 implementation.

Potential obstacles that could impact Germany's ability to meet its new deadline of August 2025 include the very high levels of CMR and other UXO contamination, including different spatial distributions and potentially higher levels of contamination than expected and addressed to date.⁶⁷ Germany's clearance plan also assumes that a sufficient amount of controlled burning is able to take place to meet the planned clearance output, which has so far been the case. There is also the potential for the planned clearance schedule to be negatively impacted due to metrological conditions, in particular, extended periods of frost, resulting in frozen ground that cannot be cleared.⁶⁸

As previously mentioned, there are also challenges posed in acquiring suitably qualified personnel for clearance, which could potentially lead to staffing shortfalls. EU procurement requirements will likely require new tendering of the clearance at Wittstock in 2020, which could further impact the number of personnel available.⁶⁹ Germany confirmed that a new tender for CMR clearance was planned in 2020.⁷⁰

As at September 2020, the COVID-19 pandemic had not had any specific impact on Germany's CMR clearance operations. Germany has, however, taken measures to adapt its clearance programme since early February/March 2020, including by ensuring that:

- Employees of the two demining companies are only allowed to meet in justified exceptional cases.
- Permanent clearance teams have been formed within the two companies. Personnel exchanges are only possible in exceptional cases.
- The clearance teams use separate and permanently assigned rest and sanitary facilities. These are disinfected after use.
- Most project meetings take place via video conference.

In addition, the usual measures (such as social distancing rules and public health rules) are observed and their compliance is monitored. Germany does not expect the COVID-19 pandemic to affect the output of clearance operations in 2020. If COVID-19 were to be brought onto the site, it is assumed that due to the separation of clearance teams, operations would only be partially affected. However, Germany also noted that the further course of the pandemic in Germany cannot be predicted.⁷¹

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- 1 CCM Article 7 Report (covering 2019), Form F; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 2 Ibid.
- 3 Article 7 Report (covering 2019), Form F.
- 4 Statement of Germany, APMBC intersessional meetings (Standing Committee on Mine Action), Geneva, 21 June 2011; and Statement of Germany, CCM intersessional meetings (Clearance and Risk Reduction Session), Geneva, 28 June 2011.
- 5 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 7 May 2018; and Statement of Germany, CCM Third Meeting of States Parties, Oslo, 13 September 2012; Article 7 Reports (covering 2012 and 2013), Form F.
- 6 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 4 August 2014.
- 7 Statement of Germany, First CCM Review Conference, Dubrovnik, 7 September 2015.
- 8 CCM Article 4 deadline Extension Request, 2019, (hereafter, CCM Extension Request 2019), p. 9.
- 9 Emails from official on the Desk for Conventional Arms Control, Federal Foreign Office, 7 May and 12 July 2018; CCM Extension Request 2019, p. 11; Statements of Germany, First CCM Review Conference, Dubrovnik, 7 September 2015; and CCM Eighth Meeting of States Parties, Geneva, 3–5 September 2018.
- 10 CCM Extension Request 2019, p. 9.
- 11 Statement of Germany, APMBC intersessional meetings, Geneva, 23 May 2012; and CCM Article 7 Report (covering 2011), Form G.
- 12 APMBC Article 5 deadline Extension Request, 15 April 2013, p. 7; and CCM Article 7 Report (covering 2015), Form F.
- 13 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 5, at: bit.ly/2DnYvGw.
- 14 Article 7 Reports (covering 2015 and 2018), Form F.
- 15 CCM Extension Request 2019, pp. 16 and 36–37.
- 16 Ibid., pp. 14, 16–17, and 36–37.
- 17 Ibid., p. 19; email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 19 April 2017; and Article 7 Report (covering 2016), Form F.
- 18 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 19 April 2017; and Article 7 Report (covering 2016), Form F.
- 19 CCM Extension Request 2019, p. 4.
- 20 Ibid., p. 22.
- 21 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 5.
- 22 Ibid., p. 5.
- 23 Ibid., p. 5.
- 24 Ibid., p. 6.
- 25 CCM Extension Request 2019, p. 12.
- 26 Ibid., p. 34.
- 27 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 4.
- 28 Article 7 Report (covering 2019), Form I.
- 29 CCM Extension Request 2019, pp. 3 and 39.
- 30 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 31 Emails from official on the Desk for Conventional Arms Control, Federal Foreign Office, 16 April 2019 and 31 July 2020.
- 32 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 33 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 16 April 2019.
- 34 Article 7 Report (covering 2019), Form F.
- 35 CCM Extension Request 2019, p. 3.
- 36 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 3; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 37 CCM Extension Request 2019, p. 35.
- 38 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 39 Ibid.
- 40 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 3.
- 41 Ibid., p. 2.
- 42 CCM Extension Request 2019, p. 12.
- 43 Ibid., p. 25.
- 44 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 2.
- 45 Ibid.
- 46 2019 CCM Extension Request, p. 12.
- 47 Ibid.
- 48 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 5.
- 49 CCM Extension Request 2019, p. 12.
- 50 Ibid., pp. 3 and 30.
- 51 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 52 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 12 July 2018.
- 53 CCM Extension Request 2019, pp. 33 and 34; and Statement of Germany, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.
- 54 CCM Extension Request 2019, p. 33.
- 55 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 16 April 2019.
- 56 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 57 CCM Extension Request 2019, p. 15.
- 58 Article 7 Report (covering 2019), Form F; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 59 Article 7 Reports (covering 2018 and 2019), Form F; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 60 Article 7 Reports (covering 2018 and 2019), Form F: calculated based on the difference between cumulative clearance output as at the end of 2019 and cumulative clearance output as at the end of 2018; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 61 Article 7 Reports (covering 2017 and 2018), Form F. Calculated based on the difference between cumulative clearance output as at the end of 2018 and cumulative clearance output as at the end of 2017.
- 62 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 63 Ibid.
- 64 CCM Extension Request 2019, p. 28.
- 65 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 66 CCM Extension Request 2019, pp. 33 and 37.
- 67 Email from official from the Desk for Conventional Arms Control, Federal Foreign Office, 7 May 2018; and CCM Extension Request 2019, pp. 35 and 36.
- 68 CCM Extension Request 2019, pp. 3, 34, and 36.
- 69 Ibid., pp. 33 and 34; and Statement of Germany, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.
- 70 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 71 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 21 September 2020.

ARTICLE 4 DEADLINE: 1 NOVEMBER 2023
NOT ON TRACK TO MEET DEADLINE

KEY DATA

CLUSTER MUNITION CONTAMINATION: HEAVY

NATIONAL ESTIMATE, FOR FEDERAL IRAQ ONLY

178 KM²

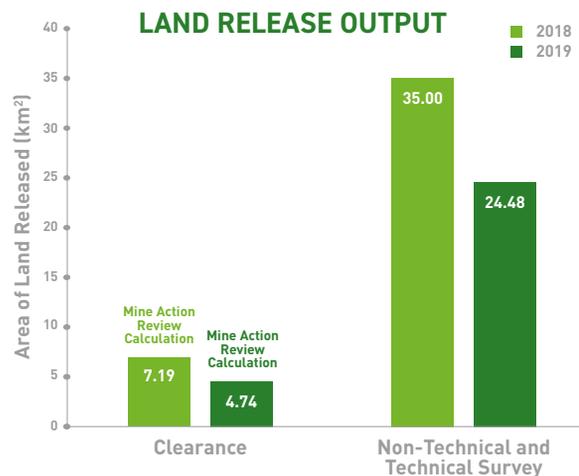
SUBMUNITION CLEARANCE IN 2019

4.74 KM²

(MINE ACTION REVIEW CALCULATION)

SUBMUNITIONS DESTROYED IN 2019

9,905



KEY DEVELOPMENTS

Land released through survey and clearance dropped in 2019 compared with the previous year. Operators also confirmed 21.6km² of contamination in two governorates.

RECOMMENDATIONS FOR ACTION

- Iraq should report comprehensively on cluster munition remnants (CMR) survey and clearance, providing data disaggregated by operator and region for Federal Iraq and the Kurdistan Region of Iraq (KRI).
- Iraq should provide an annual work plan setting out goals for survey and clearance.
- The Directorate of Mine Action (DMA) should develop a resource mobilisation strategy for tackling cluster munition contamination.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2019)	Score (2018)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	6	5	Iraq continues to find CMR contamination not previously recorded in the database underscoring the limitations of initial survey conducted after the 2003 war, but improved survey is generating more accurate data on CMR hazards.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	6	6	The DMA is responsible for planning, tasking, and coordinating mine action but is overshadowed by powerful government ministries. CMR operations are concentrated in southern governorates overseen by the Regional Mine Action Centre-South (RMAC-S), which has engaged constructively with operators on land release methodologies and priorities.
GENDER AND DIVERSITY (10% of overall score)	5	5	The DMA has engaged with international organisations to strengthen gender diversity in mine action but progress remains slow. Demining operators employ women in administrative and support roles and community liaison, but opportunities for employing them in clearance operations depend on regional social norms that vary according to locality and are particularly limited in the main CMR-affected governorates in the south.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	5	5	Iraq's mine action authorities operate Information Management System for Mine Action (IMSMA) data management systems but cumbersome procedures and reporting gaps can leave operators without access to timely or reliable data. CMR data, however, are concentrated in the RMAC-S database where operators have reported improving access and accuracy. Iraq submits regular Article 7 reports but KRI data is lacking.
PLANNING AND TASKING (10% of overall score)	6	5	Planning and tasking for survey and clearance of cluster munition affected areas has benefitted from good coordination between RMAC-S and operators.
LAND RELEASE SYSTEM (20% of overall score)	7	6	After testing and applying a new technical survey methodology in operations in 2018, based on the Cluster Munition Remnant Survey (CMRS) in south-east Asia, Federal Iraq adopted it as a national standard in 2019 citing the benefits for accurate mapping, planning, and clearance.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	5	5	Although output dipped in 2019, Federal Iraq has released significant amounts of CMR-affected areas through survey and clearance.
Average Score	5.8	5.3	Overall Programme Performance: AVERAGE

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- Higher Council of Mine Action
- Directorate of Mine Action (DMA)
- Iraq Kurdistan Mine Action Agency

NATIONAL OPERATORS

- Ministry of Defence
- Ministry of Interior (Civil Defence)
- Al Khebra Company for Demining
- Al Waha Demining Company
- Baghdad Mine Action Organisation
- Ta'az Demining Company

INTERNATIONAL OPERATORS

- Danish Demining Group (DDG)
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)

OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

UNDERSTANDING OF CMR CONTAMINATION

Federal Iraq reported CMR contamination of 178.64km² at the end of 2019 (see Table 1), around 7% less than at the end of 2018,¹ despite operators newly identifying hazardous areas in two governorates covering 21.6km².² The KRI also has CMR contamination but the extent is unknown. Iraq provided no data for the KRI but Mines Advisory Group (MAG) conducted CMR clearance in three Kurdish governorates in 2019³ and some areas close to the border with Turkey have yet to be surveyed.

Table 1: Cluster munition- contaminated area in Federal Iraq (at end 2018 and 2019)⁴

Province	Contamination at end 2018 (m ²)	Contamination at end 2019 (m ²)
Anbar	N/R	15,726
Babylon	N/R	290,701
Basrah	27,851,470	30,512,131
Diyala	20,076	20,076
Kerbala	2,107,444	2,107,444
Kirkuk	3,418,306	3,418,306
Missan	1,353,148	795,825
Muthanna	101,647,074	83,689,469
Najaf	5,321,629	5,010,038
Ninewa	N/R	4,157,090
Thi Qar	45,433,774	45,188,393
Qadissiya	3,966,337	3,137,824
Wassit	N/R	299,143
Totals	191,119,258	178,642,166

N/R = Not reported

Federal Iraq's contamination dates back to the Gulf War of 1991 and the United States (US)-led invasion of Iraq in 2003, following the path of allied forces advance from the south to Baghdad. Coalition aircraft also struck Iraqi army positions in the northern governorate of Kirkuk. The most heavily affected areas are the southern governorates of Basrah, Muthanna, and Thi Qar, which account for nearly 90% of Iraq's CMR contamination. The most commonly found items there are BLU-63 and BLU-97 submunitions. Other CMR found in the area include BLU-61 and M42 submunitions.⁵

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Cluster munitions, however, make up only a modest part of Iraq's overall landmine and explosive remnants of war (ERW) contamination. Four southern governorates alone have close to 1,000km² of minefield and substantial areas affected by ERW. Central and northern areas liberated from Islamic State have hundreds of square kilometres affected by mines of an improvised nature and the KRI reports more than 200km² of known mined area as well as ERW contamination in areas bordering Turkey that have yet to be surveyed because of insecurity.⁶ See Mine Action Review's *Clearing the Mines 2020* report on Iraq for further information on the mine problem.

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The mine action programme in Iraq is managed along regional lines. The DMA represents Iraq internationally and oversees mine action for humanitarian purposes in Federal Iraq, covering 15 of the country's 19 governorates.⁷ Mine action in the KRI's four governorates is overseen by the Iraqi Kurdistan Mine Action Agency (IKMAA), which reports to the Council of Ministers and is led by a director general who has ministerial rank.

FEDERAL IRAQ

The inter-ministerial Higher Council of Mine Action,⁸ which reports to the Prime Minister, oversees and approves mine action strategy, policies, and plans. The DMA "plans, coordinates, supervises, monitors and follows up all the activities of mine action." It draws up the national strategy and is responsible for setting national standards, accrediting, and approving the standing operating procedures (SOPs) of demining organisations and certifying completion of clearance tasks.⁹

The DMA said it asked the government for \$30.6 million a year for survey and clearance¹⁰ but has not reported how much it received or provided details of government expenditure on any aspect of mine action.

Coordinating the planning, tasking, and information management among all the actors has remained a significant challenge. As a department of the Ministry of Health and Environment, the DMA has less authority than the politically powerful Ministries of Defence and Interior, which manage significant explosive ordnance disposal (EOD) and mine clearance capacity, as well as the Ministry of Oil. Additionally, the DMA's status is not formally established by law.¹¹

Rapid turnover of directors has also hampered management and policy continuity. Essa al-Fayadh, who was at least the tenth director since 2003, was transferred to a different office in February 2019. Deputy Minister of Health and Environment, Kamran Ali, took over as acting director of the DMA until June 2019 when Khaled Rashad Jabar al-Khaqani, a former DMA director, was reappointed to the position. As of June 2020, his appointment had still not been confirmed. The DMA, meanwhile, appointed a new operations manager in the second half of 2019 and changes in Iraq's political leadership in 2020 raised the possibility of further management changes.

The DMA oversees three Regional Mine Action Centres (RMACs):

- North: covering the governorates of Anbar, Diyala, Kirkuk, Nineveh, and Salah ad-Din.
- Middle Euphrates (MEU): Babylon, Baghdad, Karbala, Najaf, Qadisiyah, and Wassit.
- South: Basrah, Missan, Muthanna, and Thi-Qar.

RMAC South, located in Basra City, maintains its own database and is responsible for tasking operators in its area of operations. RMAC North and MEU were located in Baghdad but RMAC North also opened a satellite office in Mosul in August 2019.¹²

Federal Iraq's spending on the DMA and mine action is unknown. The sector remains heavily dependent on international donor funding, most of it channelled through UNMAS and bilateral funding to clearance operators. In the past two years, the Iraqi government and donors have given priority to tackling massive contamination by mines of an improvised nature in areas liberated from Islamic State, leaving scant resources for tackling ERW contamination in others areas of Iraq, including the substantial CMR threat in the south.

KRI

IKMAA functions as a regulator and operator in the KRI. It reports directly to the Kurdish Regional Government's Council of Ministers and coordinates four directorates in Dohuk, Erbil, Garmian, and Sulimaniya (Sleman). Financial constraints halved salaries for all staff for the last three years and resulted in a number of posts being left vacant, but in 2019 payment of salaries resumed and IKMAA planned to fill vacant posts.¹³

IKMAA did not respond to requests for information about its capacity, priorities, and operating results.

GENDER AND DIVERSITY

The Iraq National Strategic Mine Action Plan specifically refers to gender equality and gender mainstreaming within mine action activities as objectives of an effective programmatic response.¹⁴ Most operators employ women in administrative office roles, many also have a significant representation of women in community liaison and risk education functions, and some also employ women in clearance teams, including as team leaders. The extent to which women participate varies significantly according to cultural sensitivities in different parts of the country.¹⁵

The DMA has had a Gender Unit since 2017. It was led in 2019 by the deputy head of the Planning Department¹⁶ and is said to encourage women to apply for employment in mine action.¹⁷ UNMAS developed terms of reference for the Gender Unit and designed and implemented a training plan. It also developed the Gender Unit's first Action Plan laying out activities designed to mainstream gender throughout the DMA. Additional support provided by UNMAS included

two training workshops for risk education, planning teams on developing gender-sensitive indicators and mainstreaming gender issues in their activities. IKMAA also reportedly established a Gender Committee in 2019 and UNMAS reported developing terms of reference setting out responsibilities and a reporting structure.¹⁸

UNMAS conducted a baseline assessment of the DMA's gender policy and practice in 2019, which concluded it had succeeded in raising awareness of gender both internally and in other government institutions engaged in explosive hazard management. Despite that progress, UNMAS observed challenges remained for recruitment, promotion and involving women in all levels of decision-making. UNMAS observed that "a highly patriarchal society, male dominated work force and general misunderstanding of what exactly 'gender in mine action' means in the day to day practical application of activities, continues to hinder widespread changes in mind sets and behaviours".¹⁹

INFORMATION MANAGEMENT AND REPORTING

The DMA and IKMAA maintain databases using Information Management System for Mine Action New Generation (IMSMA NG) with technical support from iMMAP, a commercial service provider based in Erbil and working under contract to the United States (US) Department of State's Office of Weapons Removal and Abatement (WRA).

Federal Iraq's mine action database is located at the DMA's Baghdad headquarters. RMAC-S maintains a database in Basrah, receiving reports from demining organisations in its area of operations, which is synchronised with Baghdad's at intervals determined by the volume of data to be uploaded.²⁰

Operators are required to submit results to DMA in hard copy in Arabic delivered by hand every month. DMA then uploads results manually into the database. The procedure meets Iraqi legal requirements, which do not recognise electronic copies, but can cause delays of several months before results of survey and clearance are uploaded. As a result, operators say task orders issued by the DMA have often lacked the most up-to date information.²¹

In March 2019, RMAC-S started receiving data reports electronically as well as in hard copy. Improvements in cluster munitions survey are strengthening the quality of available data through RMAC-S database. In the mine action sector in general, operators report limited access to data and expressed concern about the limited quantity and quality of data available with task orders.²²

The DMA gave operators access to an online dashboard presenting mine action data and in 2019 introduced an Online Task Management System which it claimed as the first in the world and through which operators can request IMSMA data relating to specific tasks. Operators said the utility of these tools was limited by the slow entry of operating results into the database, the variable quality of data, depending on the source, and the patchy availability of information on land use and livelihoods, which is useful for planning and prioritisation but is not shared systematically.²³

There were big discrepancies between official data (reported by RMAC-S and in Iraq's Article 7 report covering 2019) and results reported by NPA, which appear to reflect delays by the national authorities in uploading data to the national database. Furthermore, Iraq's Article 7 report covering 2019 did not include clearance of CMR-contaminated area by MAG in the KRI.

PLANNING AND TASKING

Iraq does not have a strategic plan for clearance of CMR. Few resources have been available for survey and clearance as a result of the priority given to clearance of areas liberated from Islamic State occupation.²⁴ Against that background, RMAC-S said it gave priority to survey to better define contamination and clearance of areas that are close to communities, which have experienced recent casualties, or where contamination hinders development projects.²⁵

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Iraq has national mine action standards for mine and battle area clearance (BAC), non-technical survey, and technical survey but they were written in 2004–05, exist in Arabic only and do not specifically address cluster munitions. However, the DMA has applied the Cluster Munition Remnant Survey (CMRS) methodology to CM operations since 2018, and in 2019 adopted CMRS as a national standard citing the benefits it has delivered for survey, planning and clearance.²⁶

OPERATORS AND OPERATIONAL TOOLS

Iraq provided no information on national organisations engaged in survey or clearance of CMR in 2019 but in Federal Iraq clearance is undertaken by the Army and the Ministry of Interior's Civil Defence and all demolitions are conducted by the Army.

In Federal Iraq, donors supported only two international organisations tackling CMR. Danish Demining Group (DDG), working in Basrah governorate operated with a total staff of 40, including two BAC teams with 24 deminers and two four-person survey and quality control teams,²⁷ operations were affected by the suspension of its registration by the NGO Directorate in May 2019, resulting in the stand down of operations teams for several months.²⁸

Norwegian People's Aid (NPA)'s Basrah-based operation employed a total of 96 staff, including 6 BAC teams with 57 personnel and two non-technical survey and one technical survey teams, working mainly in Basrah and Muthanna governorates.²⁹ In the KRI, only MAG reported working on CMR tasks.³⁰

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2019

Iraq reported release in Federal Iraq of 30.67km² of CMR-contaminated areas in 2019, including 24.48km² through survey and 6.2km² through clearance.³¹ The total was close to 30% less than the previous year, which Iraq attributed to funding and capacity constraints. In addition, and not included in Iraq's Article 7 report, almost 0.4km² was cleared by MAG in the KRI, albeit without finding any CMR.

On assessment of the data, Mine Action Review believes that in 2019 no more than an estimated 4.74km² of CMR-contaminated area was cleared by international and national operators (see Table 5).

SURVEY IN 2019

Iraq reported releasing 24,478,323m² through a combination of non-technical and technical survey in 2019. It said all the release occurred in the southern governorates managed by RMAC-South but gave no other details.³²

NPA confirmed 19.88km² as CMR-contaminated in 2019, a little over half of it in Muthanna governorate and the rest in Basrah³³ and DDG identified confirmed hazardous areas (CHAs) affecting 1.7km² in Basrah.³⁴ The two operators released a total of 15.2km² through non-technical and technical survey (see Table 2), with DDG cancelling 11.2km² through non-technical survey in Basrah and NPA reducing 4.1 km², most of it in Muthanna.³⁵

Table 2: CMR-contaminated area released through survey by international NGOs in 2019³⁶

Operator	Governorate	Area cancelled through NTS (m ²)	Area reduced through TS (m ²)
DDG	Basrah	11,227,925	0
NPA	Basrah	0	169,098
	Muthanna	0	3,468,431
	Missan	0	426,913
Totals		11,227,925	4,064,442

CLEARANCE IN 2019

Federal Iraq reported release of 6.2km² through clearance in 2019, 14% less than in 2018, a decline attributed to lack of capacity and meagre funding. A reported total of 9,905 CMR were destroyed during clearance in 2019. Big discrepancies between official data (see Table 3) and results reported by NPA (see Table 4) appear to reflect delays by the national authorities in uploading data to the national database. Mine Action Review believes that in 2019 no more than 4.74km² of CMR-contaminated area was cleared by international and national operators (see Table 5).

Iraq's Article 7 transparency report for 2019 did not include KRI data. The clearance that MAG reported conducting in the KRI is believed to have raised the total area released by Iraq to around 6.6km² (see Table 3) but did not lead to destruction of any cluster munition remnants.³⁷

Table 3: CMR clearance in 2019 (as reported by the national authorities)

Region	Authority	Operator	Area cleared (m ²)	CMR cleared
Federal Iraq ³⁸	RMAC South	Al-Khebra	24,046	8,999
		Civil Defence	692,840	
		DDG	123,535	
		NPA	5,040,698	
		Taaz	2,654	
	RMAC MEU	Baghdad Mine Action	311,705	6
	Federal Iraq total		6,195,478	9,905
KRI ³⁹	MAG		385,005	0
Totals			6,580,483	9,905

Table 4: International NGO CMR clearance in 2019 (as reported by the operators)⁴⁰

Operator	Governorate	Area cleared (m ²)	Submunitions destroyed	AP mines destroyed	Other UXO destroyed
DDG	Basrah	116,005	25	0	0
NPA	Basrah, Missan, Muthanna	3,206,523	1,533	36	886
Sub-totals		3,322,528	1,558	36	886
MAG	Diyala, Dohuk, Sulaymaniyah (KRI)	385,005	0	0	385
Totals		3,707,533	1,558	36	1,271

International operators active in Federal Iraq recorded less clearance than the amount attributed to them by the DMA. This is especially the case with NPA (see Table 4). DDG reported clearance of 116,005m² with the location of 25 CMR in Basrah governorate in 2019, marginally less than the previous year.⁴¹ NPA's clearance also dipped to 3.2km² in 2019, down 15% from the previous year, but the density of contamination in the tasks it tackled, particularly in Muthanna, meant that it found more than double the number of CMR. The levels of contamination identified in Muthanna prompted the Army, which is responsible for all demolitions of explosive ordnance, to assign an EOD officer permanently to NPA's operations for that purpose.⁴²

Table 5: CMR clearance in Iraq in 2019 (Mine Action Review calculation)

Operator	Area cleared (m ²)
DDG	116,005
NPA	3,206,523
MAG	385,005
Al-Khebra	24,046
Civil Defence	692,840
Taaz	2,654
Baghdad Mine Action	311,705
Total	4,738,778

ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM, Iraq is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 November 2023. The extent of Federal Iraq's CMR contamination alone ensures that it will not complete clearance by its Article 4 deadline in three years' time. How much longer it will need will depend on the levels of funding received from the government and international donors. Their priority in the last three years has been tackling dense mine contamination in areas liberated from Islamic State.

The rate of clearance continued to fluctuate in 2019, dropping 14% in Federal Iraq in 2019. But despite the limited capacity available for CMR operations, Iraq has released more than 90km² through survey and clearance in the last three years, underscoring the potential for accelerating progress towards fulfilling Iraq's treaty obligations if donor support enables more capacity to be deployed for cluster munitions survey and clearance. The United States and its NATO allies could provide useful support to the process of survey, planning and clearance by providing data on their cluster munitions strikes in the course of the Gulf Wars.⁴³

Table 6: Five-year summary of CMR clearance

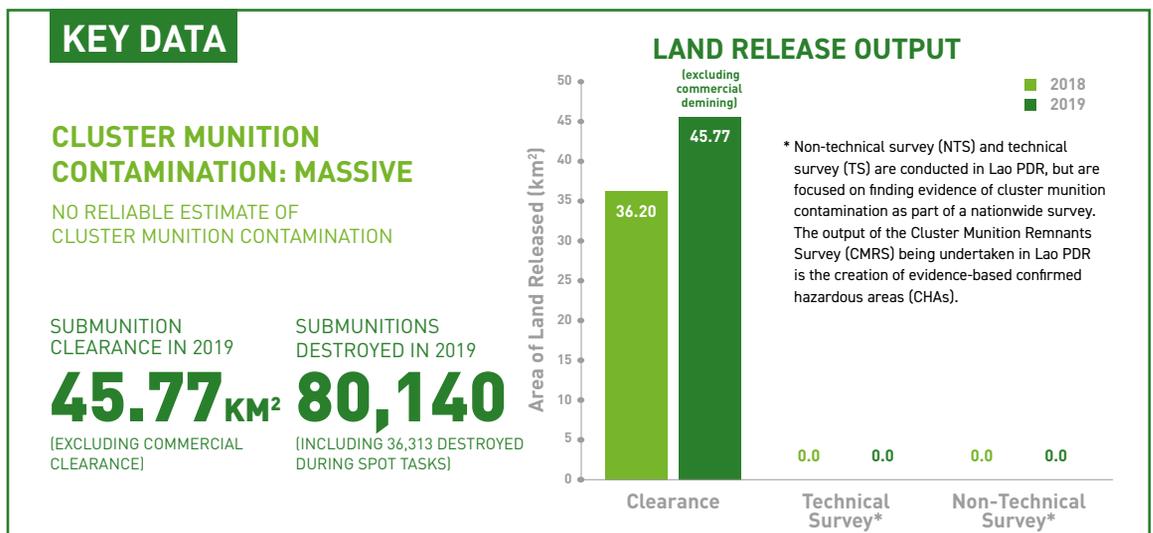
Year	Federal Iraq (km ²)	KRI (km ²)	Totals (km ²)
2019	4.3	0.4	4.7*
2018	7.2	0 ⁴⁴	7.2
2017	4.4	0.3	4.7
2016	2.9	0.2	3.1
2015	8.2	0.6	8.8
Totals	27.0	1.5	28.5

* Based on Mine Action Review calculation

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- 1 Article 7 Report (covering 2019), Form F.
- 2 Emails from Marie-Josée Hamel, Regional Programme Advisor – Middle East, Danish Demining Group (DDG), 31 May 2020; Gus Guthrie, Country Director, Norwegian People's Aid (NPA), 11 May 2020.
- 3 Email from Portia Stratton, Country Director, MAG, 20 June 2020.
- 4 Article 7 Report (covering 2019), Form F.
- 5 Interview with Nibras Fakhir Matrood, Director, DMA RMAC-S, and Haitham Fattah Lafta, Operations Manager, RMAC-S, Basrah, 29 April 2019; and with Mats Hektor, Project Manager, NPA South Iraq, Basrah, 28 April 2019.
- 6 Interviews with Nibras Fakhir Matrood and Haitham Fattah Lafta, RMAC-S, Basrah, 29 April 2019; and Siraj Barzani, Director General, IKMAA, in Erbil, 9 May 2019.
- 7 DMA presentation to 2015 Mine Action Country Planning Workshop for Iraq, Istanbul, 13 May 2015; Geneva International Centre for Humanitarian Demining (GICHD), "Capacity Development Support to National Mine Action Authorities in Iraq, Phase 1: Initial Assessment Mission", February 2012.
- 8 The council is led by the Prime Minister and includes representatives of the ministries of defence, interior, oil, and environment, as well as the National Security Adviser and the head of IKMAA.
- 9 "Document of roles and responsibilities", undated but 2019, received by email from the DMA, 13 May 2019.
- 10 Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report (covering 2019), p. 71.
- 11 Interviews with the DMA, Baghdad, 3 and 5 May 2019.
- 12 Interview with Gus Guthrie, NPA, in Geneva, 12 February 2020.
- 13 Interview with Siraj Barzani, IKMAA, Erbil, 9 May 2019.
- 14 National Strategic Mine Action Plan, pp. 12, 18, 20, and 30.
- 15 Interviews with mine action stakeholders in Iraq, 28 April–6 May 2019.
- 16 Email from Shinobu Mashima, Programme Officer, UNMAS, 6 April 2020.
- 17 Email from Peter Smethers, Programme Manager/Country Director, FSD, 20 April 2020.
- 18 Email from Shinobu Mashima, UNMAS, 6 April 2020.
- 19 Ibid.
- 20 Interview with Nibras Fakhir Matrood, DMA RMAC South, Basrah, 29 April 2019.
- 21 Interviews with operators in Iraq, 28 April–6 May 2019.
- 22 Ibid.
- 23 Emails from international operators, April–June 2020.
- 24 Statement of Iraq to the Ninth Meeting of States Parties to the CCM, Geneva, 2 September 2019.
- 25 Interview with Nibras Fakhir Matrood and Haitham Fattah Lafta, RMAC-S, Basrah, 29 April 2019.
- 26 Email from Haitham Fattah Lafta, RMAC-S, 12 August 2020.
- 27 Email from Mohammed Qasim, Programme Manager, DDG Basrah, 29 April 2019.
- 28 Email from Marie-Josée Hamel, DDG, 31 May 2020.
- 29 Emails from Gus Guthrie, NPA, and Chris Ramsden, Project Manager NPA South, 11 August 2020.
- 30 Email from Portia Stratton, MAG, 28 June 2020.
- 31 Article 7 Report (covering 2019), Form F.
- 32 Ibid.
- 33 Email from Gus Guthrie, NPA, 11 May 2020.
- 34 Email from Marie-Josée Hamel, Regional Programme Advisor – Middle East, DDG, 31 May 2020.
- 35 Emails from Gus Guthrie, NPA, 11 May 2020, and Marie-Josée Hamel, DDG, 31 May 2020.
- 36 Ibid.
- 37 Article 7 Report (covering 2019), Form F; email from Portia Stratton, MAG, 28 June 2020.
- 38 Email from Haitham Fattah Lafta, RMAC-S, 11 August 2020; Article 7 Report (covering 2019), Form F.
- 39 Email from Portia Stratton, MAG, 28 June 2020.
- 40 Emails from Marie-Josée Hamel, DDG, 31 May 2020; Gus Guthrie, NPA, 11 May 2020; and Portia Stratton, MAG, 28 June 2020.
- 41 Email from Marie-Josée Hamel, DDG, 31 May 2020.
- 42 Email from Gus Guthrie, NPA, 11 May 2020.
- 43 Article 7 Report (covering 2019), Form J.
- 44 MAG reported 27,663m² of clearance for 2018.

ARTICLE 4 DEADLINE: 1 AUGUST 2025

LAO PDR WILL REQUIRE MULTIPLE EXTENSIONS BEFORE REACHING COMPLETION



KEY DEVELOPMENTS

The national programme in the Lao People's Democratic Republic (Lao PDR) continued to make solid progress in the destruction of cluster munition remnants (CMR) in 2019. Lao PDR was granted a five-year extension to its Article 4 deadline at the Ninth Meeting of States Parties to the Convention on Cluster Munitions (CCM). Based on data from national and international operators, land release by clearance in 2019 was a 26% increase on the previous year, at more than 45.6km², largely thanks to greater capacity resulting from new funding.

Evidence-based survey methodology is now being applied routinely to identify confirmed hazardous areas (CHAs). Efforts were also ongoing to clean up historical errors in data records and strengthen information management systems and processes. However, the Memorandum of Understanding (MoU) process for international clearance operators remained excessively time-consuming and burdensome, resulting in avoidable delays to land release operations.

RECOMMENDATIONS FOR ACTION

- Procedures for issuing, amending, or renewing MoUs should be streamlined to avoid inefficiencies and excessive delays.
- Cooperation and coordination between clearance operators should be further strengthened. In particular, the National Regulatory Authority (NRA) should ensure that UXO Lao data from historic tasks, which is not already on the database, be made readily available to international operators to help inform survey and clearance operations.
- The NRA should ensure the Information Management System for Mine Action (IMSMA) database is comprehensive and up to date, especially given the increased volume of data resulting from the ongoing nationwide cluster munition remnants survey (CMRS).
- The NRA should prioritise the development of a planning and prioritisation system to support the CMR survey and clearance process.
- The NRA and clearance operators should strengthen coordination with provincial, district, and village-level authorities during implementation and planning of CMRS and clearance, incorporating gender considerations.
- Lao PDR should elaborate annual sector-wide work plans for survey and clearance of CMR, in collaboration with its implementing partners.
- Lao PDR should establish a country coalition, to bring together all stakeholders on a quarterly basis to discuss progress and challenges in Article 4 implementation.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2019)	Score (2018)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	7	7	Lao PDR does not yet have a reliable estimate of CMR contamination, but is undertaking a nationwide survey that should produce an evidence-based assessment of the full extent of CMR contamination. At least 2,873 villages are believed to be affected by CMR.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	6	7	In 2019, a new Director was appointed both to the NRA and to national clearance operator, UXO Lao. There is strong national ownership from the NRA and mine action in Lao PDR is also firmly linked to the government's sustainable development planning. However, MoU procedures continued to remain complex and heavy, causing notable delay and significantly impeding the implementation and expansion of survey and clearance.
GENDER AND DIVERSITY (10% of overall score)	7	7	In early 2019, Lao PDR finalised a manual for trainers on gender mainstreaming in the UXO Sector. The government also partnered with the Association of South-East Asian Nations (ASEAN) Regional Mine Action Center (ARMAC) to deliver a Regional Workshop on Gender Equality and Empowerment in mine action in October 2019, in Vientiane. Clearance operators report having gender policies in place or are in the process of implementing such policies, consult with women and girls during survey and clearance operations, and disaggregate mine action data by sex and age.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	6	6	Lao PDR submitted its CCM Article 4 extension request on time and it was granted at the Meeting of States Parties in September 2019. There are ongoing efforts to correct historical data in IMSMA and to improve information management systems and processes to ensure the quality and transparency of data, especially given the increased volume of data resulting from the ongoing nationwide CMRS. IMSMA VPN has been introduced, and is now used by all international clearance operators, which has helped improve the accessibility of data and the speed and quality of data entry and the reporting process. The National Mine Action Standard (NMAS) on IM was reviewed and updated in 2019, but might only be formally approved once other relevant chapters of NMAS have also been updated.
PLANNING AND TASKING (10% of overall score)	6	6	In its 2019 Article 4 extension request, Lao PDR outlined a work plan for the five-year extension period, with three potential clearance output estimates, each with measurable benchmarks, dependent on the level of funding and capacity obtained. Unfortunately, there was no sector-wide annual work plan for Lao PDR for 2019, as there had been for 2018, but one was being elaborated collectively in 2020 for 2021. No comprehensive national-level guidance on the prioritisation of clearance tasks exists, but a project began in 2019 to create a nationwide prioritisation matrix.
LAND RELEASE SYSTEM (20% of overall score)	8	8	Lao PDR's UXO Survey Standards, which specify the minimum standards and requirements for the survey of all cluster munition-contaminated areas, are well adapted to the local threat and context and adopt an evidence-based land release methodology, in line with international best practice. Land release operations in Lao PDR are conducted by a range of implementing partners, which includes the national operator UXO Lao; international non-governmental organisations (INGOs), HALO Trust, HI, MAG, and NPA; commercial clearance operators; and teams of the Lao Army.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	8	7	Lao PDR remains focused on the continued nationwide CMRS of CMR contamination, with the amount of CHA identified increasing by at least 17%, compared to the previous year. At the same time, clearance output of international clearance operators in 2019 increased by more than 25% compared to 2018, largely due to an increase in clearance capacity thanks to DFID funding.
Average Score	7.1	7.0	Overall Programme Performance: GOOD

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- National Regulatory Authority (NRA) Board
- National Regulatory Authority (NRA)

NATIONAL OPERATORS

- UXO Lao
- Humanitarian teams of the Lao People's Army
- Commercial operators

INTERNATIONAL OPERATORS

- The HALO Trust
- Humanity and Inclusion (HI)
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)
- Commercial operators

OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Development Programme (UNDP)
- Tetra Tech

UNDERSTANDING OF CMR CONTAMINATION

Lao PDR does not yet have a reliable estimate of CMR contamination,¹ but is undertaking a nationwide CMRS that should produce an evidence-based assessment of the full extent of CMR contamination.² US bombing data indicate 70,000 individual target locations across Lao PDR.³ Fourteen of the country's eighteen provinces are contaminated: Attapeu, Bolikhamxay, Champasak, Houaphanh, Khammouane, Luang Prabang, Oudomxay, Phongsaly, Saravan, Savannakhet, Vientiane Capital, Vientiane Province, Xekong, and Xiengkhouang.⁴ Of these, nine are heavily affected: Attapeu, Champasak, Houaphanh, Khammouane, Luang Prabang, Saravan, Savannakhet, Xekong, and Xiengkhouang.⁵

As at the end of 2019, survey had been conducted in 1,966 villages in ten of the most contaminated provinces, resulting in 10,838 CHAs, totalling over 1,115.5km² of CMR-contaminated area (see Table 1).⁶ The nationwide survey is ongoing and has yet to be completed in any province.⁷ The amount of CHA is expected to continue to increase and may double or even triple over the next five years.⁸ As at the end of 2018, 9,284 CHAs had been identified totalling 858km².⁹

Table 1: CMR survey results (at end 2019)¹⁰

Province	No. of villages	No. of CHAs	Total area (km ²)
Attapeu	144	1,429	133.36
Bolikhamxai	24	11	0.90
Champasak	93	297	14.62
Houaphanh	72	345	36.49
Khammouane	111	477	82.35
Luang Prabang	59	205	22.24
Saravan	527	2,066	92.17
Savannakhet	320	3,558	156.68
Xekong	210	1,225	84.11
Xiengkhouang	406	1,225	492.61
Totals	1,966	10,838	1,115.53

In both its 2019 Article 4 deadline extension request and its Article 7 transparency report covering 2019, Lao PDR estimated that the total CMR contamination is approximately 8,470km², a figure unchanged since its September 2011 clearance statement to the CCM Second Meeting of States Parties. As stated above, this figure is, however, increasing as the nationwide survey progresses and the survey will help determine the extent of cluster munition contamination more accurately.¹¹

Lao PDR certainly has the world's highest level of contamination by unexploded submunitions as a result of the Indochina War of the 1960s and 1970s. The United States conducted one of the heaviest aerial bombardments in history, dropping more than two million tonnes of bombs between 1964 and 1973,¹² including more than 270 million submunitions (known locally as bombs). The failure rate is not known, but Lao PDR reports it may have been as high as 30 percent, and an estimated 80 million submunitions are thought to have remained unexploded at the end of the war.¹³

During the period of its Article 4 extension request (2020–25), Lao PDR will focus survey on the most heavily contaminated provinces currently being surveyed, but the remaining affected provinces will also need to be surveyed in order to quantify the extent of CMR contamination nationwide.¹⁴ According to the co-chairs of the UXO Sector Working Group, the United States and UNDP, significant and efficient planning will be needed if the national survey is to be completed during Lao PDR's five-year extension period.¹⁵

Through non-technical survey at the village level, the current baseline of CMR contamination is being established through inclusive consultation with women, girls, boys, and men, including, where relevant, from minority groups.¹⁶

According to Lao PDR's 2019 Article 4 deadline extension request, between the time Lao PDR became a State Party to the CCM on 1 August 2010 (when the Convention as a whole entered into force) and the end of 2018, a total of 41,088 hectares (410.9km²) was cleared, with the destruction of 518,368 submunitions. This includes clearance by humanitarian operators, commercial operators, and humanitarian clearance teams of the Lao Army.¹⁷

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Lao PDR also has extensive contamination from other explosive remnants of war (ERW), including both air-dropped and ground-fired unexploded ordnance (UXO), though the extent of contamination is not known. Clearance operators have reported the presence of at least 186 types of munition in Lao PDR. These range from 20lb fragmentation bombs to 3,000lb general-purpose bombs, as well as artillery shells, grenades, mortars, and rockets.¹⁸ Lao PDR is also contaminated, but to a much lesser extent, by anti-personnel mines and anti-vehicle mines (See Mine Action Review's *Clearing the Mines 2020* report on Lao PDR for more information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The NRA, created by government decree in 2004 and active since mid 2006, has an interministerial board composed of representatives from government ministries and is chaired by the Minister of Labour and Social Welfare.¹⁹ The Prime Minister of Lao PDR approved a new decree, "On the Organisation and Operations of the National Regulatory Authority for UXO in Lao PDR" in February 2018. The decree defines the position, role, duties, rights, organisational structure, and the working principles and methods of the NRA.²⁰ A new Director of UXO Lao was appointed in 2019.

The NRA acts as the coordinator for national and international clearance operators and serves as the national focal point for the sector. This includes overall management and consideration of policy, planning, projects, and coordination of the implementation of the national strategy nationwide, as well as NRA planning and coordination functions at the provincial and district levels.²¹ Effective coordination is particularly needed to help prioritise clearance of the huge number of CHAs already in the database as a result of the ongoing CMRS.²² A new Director of the NRA was appointed in June 2019.²³

Lao PDR contributed \$30,911 towards rental of the NRA office in 2019 and training of UXO Lao deminers. It also makes in-kind contributions to mine action through tax exemptions for visas, and importing vehicles and equipment for humanitarian operators.²⁴ Clearance operators are, however, required to pay visa fees for expatriates and the previous tax concession of tax exemption for international experts was removed from all MoUs after 2018.²⁵

The Lao government adopted UXO clearance as a ninth Millennium Development Goal in 2010, targeting removal of all UXO from priority agricultural land by 2020.²⁶ This target has not been met, and the nationwide survey to establish the baseline of CMR, including contamination in priority agricultural land, is ongoing. Subsequently, during the Association of Southeast Asian Nations (ASEAN) summit in September 2016, Lao PDR launched sustainable development goal (SDG) 18, "Lives Safe from UXO", which focuses on freeing the country from UXO. The Eighth National Socio-Economic Development Plan (2016–20) also reflected the importance of UXO clearance for realising Lao PDR's development targets.²⁷ In its annual report, the government said that focus in 2019 had been on implementing the UXO Sector National Strategic Plan, Safe Path Forward II, 2011–2020 in order to further the achievement of the Eighth National Socio-Economic Development Plan. Priority was also given to the implementation of the Poverty Eradication Plan, as well as the SDG 18. In addition, the NRA focused on the priority development areas, development projects, and improved agricultural land for Lao ethnic groups.²⁸

The United Nations Development Programme (UNDP) provides programmatic and technical support to the NRA and UXO Lao, including with regard to information sharing and coordination, albeit at a reduced capacity compared to previous years.²⁹ Further capacity development in information management, quality management, and operations support, is provided primarily to UXO Lao, and to a lesser extent the NRA, through a United States (US)-funded grant manager, Tetra Tech.³⁰ In 2020, the Geneva International Centre for Humanitarian Demining (GICHD) is providing support to the development of Lao's new national strategy, information management, and risk management.³¹

There is a UXO Sector Working Group (SWG), led by the chair of the NRA board, and co-chaired by UNDP and the US Ambassador in Vientiane, which meets annually and brings together key stakeholders, including donors, to share information and enhance coordination and resource mobilisation.³² The most recent SWG meeting was convened in August 2020.³³ The NRA planned to diversify the sources of funding throughout the extension period, including engaging the private sector and non-institutional donors. The Lao government also planned to approach new potential donors, such as China, India, and Russia.³⁴

International clearance operators have good cooperation and coordination with the NRA at the national level but also at provincial and district levels. Lack of resources and capacity of some of the provincial NRAs can, however, impact their ability to fulfil their roles. Humanitarian clearance operators are involved in key decision-making processes by the NRA, including through participation in Technical Working Groups (TWGs).³⁵ There have been four TWGs, namely: for survey and clearance, information management, UXO/mine risk education, and victim assistance. The TWGs, which are held regularly, are designed to promote information sharing and progress in the four thematic aspects.³⁶ In addition, following the Second Regional CMRS workshop in 26–30 August 2019, convened by the US Office of Weapons Removal and Abatement (WRA), a fifth, separate CMR survey working group was established, involving clearance operators, and other key stakeholders.³⁷ The survey working group has been collecting data on the depth at which CMR are found.³⁸

The United Kingdom Department for International Development (DFID) grant in 2019 has helped to strengthen cooperation and coordination between clearance operators, with monthly coordination meetings held with HALO, Mines Advisory Group (MAG), and Norwegian People's Aid (NPA).³⁹ Lao PDR also conducted two exchange to Cambodia and Vietnam in September 2019 and February 2020, which were considered very useful by all three national authorities.⁴⁰

Operators were consulted during the elaboration of Lao PDR's 2019 CCM Article 4 extension request.⁴¹ When commenting on the extension request in September 2019, the CCM Article 4 Analysis group recommended the establishment of a country coalition in Lao PDR to enhance coordination in implementing the work plan included in its extension request.⁴²

Despite some efforts by the NRA to clarify the procedure for MoUs, MoU procedures in Lao PDR remain lengthy, complex, and labour-intensive. They continue to cause significant delay and impede the implementation and expansion of survey and clearance, including by preventing the procurement and import of equipment.⁴³ Operators are required to report and secure approval for completed projects before an MoU for a new project can be approved. The lack of an MoU prevents expansion of operations or procurement of new equipment.⁴⁴ Typically it takes a minimum of six months for an MoU to be approved; sometimes it is significantly longer, and the process may even take several years to complete. Unfortunately, some donor funding could not be spent in 2019 due to delays in the MoU process and had to be returned to the donor.⁴⁵ Furthermore, even after formal approval of an MoU, operators may still experience challenges importing necessary equipment⁴⁶ or small items of additional equipment, which require time-intensive MoU amendments.⁴⁷ NPA reported that it took nine months to get three trucks and two 4x4 vehicles released from customs, even with an MoU.⁴⁸

Donors have urged the Government of Lao PDR to facilitate the MOU process, however guidelines continued to change for each MoU process. The NRA acknowledged delays and accepted that improvements could be made on the part of the national and local authorities involved in the MoU process. However, the NRA has said previously that some of the delays are due to incorrect reporting or a failure to follow correct MoU guidelines by clearance operators.⁴⁹ MoUs for The HALO Trust and NPA were finally signed on 21 June 2019.⁵⁰ MoUs with Humanity and Inclusion (HI) and MAG were signed previously.

GENDER AND DIVERSITY

While the NRA has yet to develop a gender and diversity policy, gender is integrated into all core UXO documents including work plans and the national strategy, and relevant mine action data is disaggregated by sex and age. Women are consulted in group discussions as part of survey and clearance activities, but the needs of women and children had yet to be fully taken into account for prioritisation and planning. Of the 41 employees at the NRA, 13 (31%) are women, including three of the nine NRA Officers.⁵¹

Following the establishment of a partnership in 2018 between UN Women, the NRA, and the Lao Women's Union on how to promote gender rights in the UXO sector, a "Manual for Trainers on Gender Mainstreaming in the UXO Sector, Lao PDR" was piloted during a workshop in December 2018 and published in 2019.⁵²

In partnership with government of Lao PDR, ARMAC delivered a Regional Workshop on Gender Equality and Empowerment in ASEAN Mine/ERW Action in October 2019, in Vientiane. The two-day workshop, funded by Canada, with training led by the GICHD, brought together representatives from 10 ASEAN member States to share their experience and approaches to incorporating gender equality and perspectives into their national mine action programmes. Participants were encouraged to analyse their work through a gender lens to consider how projects and activities are implemented and how the priorities and capabilities of women, girls, boys, and men and other diverse groups are accounted for in programme development and design.⁵³

The HALO Trust, HI, MAG, and NPA all reported having gender policies in place, and that they disaggregate mine action data by sex and age, and consult with women and girls during survey and clearance operations.⁵⁴

HALO reported that all its teams are gender balanced and there is equal access to employment for qualified women and men in HALO's survey and clearance teams in Lao PDR. As at the end of 2019, HALO Laos employed 222 female national staff (42%) out of a total of 526, of whom 189 (85%) were employed in operational roles in survey and clearance teams. Of the programme's 20 most senior managerial positions, half were filled by women.⁵⁵

HI provides equal opportunities to employment for qualified women and men in its survey and clearance teams in Lao PDR, and trains and promotes women to managerial positions. HI has mixed non-technical survey teams, with employees of different ethnic origins and persons with disability, including UXO survivors. It has a commitment to ensure that 50% of staff trained/recruited are women, and in 2019–20 was conducting in-house EOD-2 training that involves three women and three men recruited in 2018 for the Houaphanh project. Overall, women account for half of HI's survey and clearance personnel in Lao PDR and half of managerial level/supervisory positions.⁵⁶

MAG employed a weighted application system during its recruitment process for the new DFID grant in early 2019, in order to prioritise groups in Lao society that are traditionally disadvantaged. It devised a scoring system for use during the newly introduced electronic shortlisting process, awarding points for indicators of disadvantage (e.g. single parents/widows, ethnic minorities, those from flood-affected villages, low level of education, and women), helping ensure more members of disadvantaged groups were interviewed. The shortlist scores were also considered alongside the interview scores, helping to offset the disadvantage that individuals with low literacy or little interview experience face. Overall, women account for 37% of operational roles in MAG's survey and clearance teams in Lao PDR and 44% of managerial level/supervisory positions (26% of operational managers and 50% of support managers).⁵⁷

NPA's Lao PDR programme has a Gender Action Plan 2019–20 and in November 2019 a one-day workshop on gender mainstreaming and equality was held for all 350 NPA field staff in Pakse. The training provided staff with an introduction to gender mainstreaming in mine action, including promoting women's leadership in the UXO sector.⁵⁸ NPA also prioritises ethnic and language minorities, and women, as part of its recruitment process. While NPA survey and clearance teams are gender inclusive, they are not yet gender balanced. In 2019, women made up over 26% of NPA Lao PDR's staff members, an increase from 2018. This included 79 women (27%) in a total of 296 operational staff, 9 women (22%) in a total of 40 support staff, and 2 women (25%) in a total of 8 expatriate staff members. Approximately 30% of managerial positions in the programme were held by women.⁵⁹

UXO Lao ensures that all groups affected by CMR contamination, including women and children, are consulted during its survey and community liaison activities. This requirement is included in its standing operating procedures (SOPs). UXO Lao also ensures its survey and community liaison teams are inclusive and gender balanced, to facilitate access and participation from all groups.⁶⁰ UXO Lao reported that it offers employment opportunity to all and is trying to increase the number of women in survey and clearance teams and in management positions.⁶¹ UXO Lao said that it advocates for equality in the workplace and that its human resource policies encourage female applicants at all levels, and has one female unit chief. Of its 1,396 staff employed, 371 (27%) are female, of whom 74% work in the field: seven as team leaders and three as specialist explosive ordnance disposal (EOD) personnel.⁶²

INFORMATION MANAGEMENT AND REPORTING

The national IMSMA database has several data problems, including incorrect or incomplete historical data (mainly that of UXO Lao data stored as hard-copy documents in provincial UXO Lao offices); missing data from the migration to IMSMA; and delays in entering corrected data into the database.⁶³ The NRA has identified the need for better quality control of data in the IMSMA database.⁶⁴ It is reported to be continuing to improve data quality, focusing again on the quality of forms and correcting data errors in 2020.⁶⁵ It has also stressed that upgrading information management systems will be crucial given the greatly increased volume of data resulting from the ongoing nationwide CMRS.⁶⁶ The TWG on information management met quarterly in 2019.⁶⁷

A 2017 report by Sterling International, the former US contractor before Janus and Tetra Tech, said analysis of data in the NRA IMSMA database found errors affecting up to 9,300 entries, or 14% of the 67,000 entries on the database. Sterling believed that the errors could affect 22% of the area recorded in the database as cleared or technically surveyed. The errors included operators' misreporting of coordinates and mistaken entry of reports into IMSMA. Other errors included use of the wrong GPS format or the wrong map datum. The result was to put many tasks in the wrong location. Sterling found that the errors occurred mostly with UXO Lao's work, and mostly between 2004 and 2010, but that it affected "many" organisations.⁶⁸ Efforts to correct historical data within IMSMA (including incorporation of correct current data) are ongoing. It is also important that village-level data corrections made by operators during the nationwide CMRS are updated in IMSMA in a timely manner.⁶⁹

When the organisation conducting the CMRS is different to the one holding historical records, the nationwide CMRS demands good cooperation and timely sharing of data relating to villages between clearance operators. This pertains to historical information on EOD roving tasks, area clearance, and accident data.⁷⁰ Communication between international operators and UXO Lao is continuing to improve. However, while UXO Lao does provide its data on historical tasks to international operators to help inform desktop studies before sending in survey teams, data is often slow to be made available.⁷¹ Delays in the timely provision of historical data by UXO Lao are understood to be partly connected to the lack of an appropriate and clear structure for the granting of permissions for data sharing at the provincial level. UXO Lao reported that it is not permitted to share corrected data not in IMSMA directly with operators, unless approval is granted by the NRA.⁷²

With capacity development support from NPA, revisions to the Information Management (IM) NMAS were submitted to the NRA for consideration in 2019, and will be formally approved once other relevant chapters of NMAS have also been updated. IM SOPs for the NRA, including IM process maps and guidelines, were also drafted and submitted for translation into Lao as well. The UXO sector is said to be positive about the revised draft IM NMAS which better defines the minimum requirements, and roles and responsibilities of different organisations in IM.⁷³

International clearance operators believed there was scope for the data gathering forms to be strengthened to also ensure socio-economic and impact data is also available for use in planning and prioritisation.⁷⁴ As at May 2020, final proposed revisions to IMSMA forms had been accepted by the NRA, but not officially approved yet. Collection of socio-economic data started in June 2020,⁷⁵ but as at August operators had still to receive any revised IMSMA forms with added socio-economic data.

Following additional NPA capacity development in 2019 under DFID funding, four provincial authorities in the south are now in a position to access and use the IMSMA database. The same training package and approach was also used to conduct IMSMA training in the remaining 11 provinces by the NRA.⁷⁶

Operators reported that data submitted to the NRA were typically updated in a timely manner and accurately.⁷⁷ IMSMA VPN was tested from July to September 2018, with technical support from NPA, and was considered successful and subsequently rolled out. As at August 2020, all operators, except for UXO Lao, were using IMSMA VPN.⁷⁸ It has helped improve the accessibility of data, the speed and quality of the data entry, and the reporting process, with crosschecks raising any discrepancies for correction.⁷⁹ However, IMSMA is still not fully accessible to operators, who can only access their own data in the system and have to formally request the additional data.⁸⁰

Expanding the use of IMSMA to support survey planning and the review of all historical operational data (both electronic and paper), will help ensure that non-technical survey is followed up by robust technical survey operations.⁸¹ In addition, the information management system in Lao PDR must also be equipped to record operator conclusion reports, in order to know how many villages have been surveyed.⁸² The NRA's IM unit has a system in place to record conclusion reports, but not all operators submit the information.⁸³

Lao PDR provides regular updates on its progress in Article 4 implementation, both in its annual Article 7 transparency reporting and in statements at the CCM meetings of States Parties. It submitted a timely CCM Article 4 deadline extension request, which was granted at the CCM Ninth Meeting of States Parties in September 2019.

PLANNING AND TASKING

As part of efforts to implement the CCM Vientiane and Dubrovnik Action Plans, the Lao Government adopted “Safe Path Forward II, 2011–20”, a 10-year national strategy for the UXO sector. The strategy’s goal is “to reduce the humanitarian and socio-economic threats posed by UXO to the point where the residual contamination and challenges can be adequately addressed by a sustainable national capacity fully integrated into the regular institutional set-up of the Government.”

Safe Path Forward II was reviewed in June 2015, when the NRA set a number of specific targets for the remaining five years up to 2020.⁸⁴ Many of these were superseded in March 2016 when the NRA issued a landmark paper committing to time-bound nationwide non-technical and technical survey through the CMRS project, with a view to producing Lao PDR’s first baseline estimate of CMR contamination.⁸⁵ There was a corresponding multi-year work plan 2016–20 for implementation of the Safe Path Forward II strategy,⁸⁶ which called for spending on clearance of \$57 million, and targeted clearance for 2017–21 of 45km² a year, considerably in excess of previous clearance rates.⁸⁷

A new national strategic plan for the UXO Sector is being elaborated for 10 years, in line with SDG 18 under the 2030 SDG agenda.⁸⁸ A GICHD-facilitated strategy stakeholder workshop, planned for March 2020 in Vientiane, unfortunately had to be postponed due to the COVID-19 outbreak. As a result of continued travel restrictions related to COVID-19, the GICHD was planning to support the NRA by facilitating an online strategy stakeholder workshop before the end of 2020. This workshop will result in a “theory of change” approach that will provide the foundation for Lao PDR’s new national strategy.⁸⁹ Through its US-funded agreement between Tetra Tech and the NRA, the United States is continuing to “support the Lao Government as it formulates its 10-year National Strategic Plan for the UXO Sector, a plan that will map the path to achieving SDG 18 – the elimination of UXO as a barrier to national development by 2030.”⁹⁰

In a positive development, a first-ever sector-wide annual work plan for Lao PDR for 2018 was developed in an inclusive manner with input from all relevant stakeholders and subsequently approved by the NRA Board.⁹¹ Unfortunately, stakeholders were not brought together to help inform elaboration of the annual sector-wide work plan for 2019, in the same way as for 2018, reportedly due to lack of budget. Instead the ministry collected the data to inform the 2019 plan.⁹² A consultative workshop was, however, held in June 2019 to support the development of the sector-wide work plan for 2020,⁹³ and a workshop was also held in September 2020 with all stakeholders, including UXO Lao and the four international NGOs, to discuss elaboration of a sector-wide work plan for 2021.⁹⁴

In 2018, Lao PDR began a national CMRS baseline survey, with funding from the United States, and the baseline survey is ongoing. The first phase of the survey involves six province-wide surveys (in Attapeu, Champasak, Saravan, Savannakhet, Xekong, and Xiengkhouang) by HALO Trust, MAG, and NPA of all villages suspected or confirmed as CMR-contaminated, according to the NRA’s village list.⁹⁵ In September 2018, Lao PDR announced that three additional contaminated provinces would be added to the national survey plan in 2019 and another five provinces in 2020–21, with the aim to have 14 provinces fully surveyed by end of 2021.⁹⁶ However, survey has fallen behind schedule.⁹⁷

According to Lao PDR’s 2019 Article 4 deadline extension request, “all sector activities are implemented in order to achieve SDG18 “Lives Safe from UXO”, to remove the UXO obstacle to national development and the activities should be implemented in line with the strategic documents and policies”.⁹⁸ The UXO Sector has been further integrated into the national development agenda, such as the National Policy on Rural Development and Poverty Eradication, including the National Socio-Economic Development Plan (2016–20), on the approval of priority development areas.⁹⁹

WORK PLAN ESTIMATES FOR THE EXTENSION REQUEST PERIOD (2020–25)

Lao PDR’s CCM 2019 Article 4 extension request includes a five-year work plan for survey and clearance, with progress dependent on the level of funding it secures. There will be a strong concentration on survey during the extension period, with a focus on the six most contaminated provinces to be completed as soon as possible, followed by the others. Clearance will take place simultaneously with survey activities.¹⁰⁰

Based on existing capacity, over the five-year period of Lao PDR’s extension (1 August 2020–31 July 2025), 25 non-technical survey teams will survey 1,463 cluster munition contaminated villages (292 villages per year), at a total cost of US\$4.5 million and 76 technical survey teams would survey 2,873 villages at a predicted total cost of US\$38 million (US\$7.6 million per year). Re-survey is to be conducted as required, if new evidence of CMR is reported and found.¹⁰¹

As at the end of 2018, more than 9,284 CHAs, equivalent to 858km² in size, had already been identified through the ongoing CMRS and entered into IMSMA, representing several years of clearance efforts based on current clearance capacity. The NRA predicts that the number of CHAs containing CMR will significantly increase during the five-year period of the extension request, at a rate far faster than the CMR-contaminated areas can be cleared.¹⁰²

In its 2019 Article 4 extension request, Lao PDR outlines three different estimates for CMR clearance, based on three different scenarios for available resources. The first outlines predicted clearance output based on existing resources during 2020–25; namely 108 teams, with a total clearance output of 50km² per annum, at a cost of US\$12.5 million per year. This would result in clearance of 250km² at a cost of \$62.5 million, during the five-year extension request period.¹⁰³ This seems highly ambitious, based on current output.

The second estimate predicts clearance output based on the additional resources needed to address the 800km² of CHA already recorded in IMSMA as at end of 2018. This would see annual clearance output incrementally increased from 60km² per annum in 2020 to 280km² per annum in 2024, with total clearance output of 800km² during the five-year extension request period, at a total cost of US\$200 million.¹⁰⁴

The third estimate predicts clearance based on the additional resources needed to address 1,600km² of CHA, which includes the further 800km² of CHA predicted to result from CMRS during the five-year extension request period, at a total cost of US\$400 million.¹⁰⁵

Prioritisation of clearance is a critical step in the land release cycle and a key component of an integrated survey and clearance programme, especially given the large and increasing number of CHAs produced by the ongoing nationwide CMRS. However, at present, there is no comprehensive national-level guidance on the prioritisation of clearance tasks and prioritisation systems and criteria vary markedly between the operators.¹⁰⁶ The co-chairs of the UXO Sector Working Group, the United States and UNDP, believe a prioritisation plan will need to be developed for the entire UXO Sector, including both commercial and humanitarian operators.¹⁰⁷ The sector would benefit from the strengthening of the capacity and participation of the NRA at the provincial level and of district officers from the Labour and Social Welfare authorities. Operators also stressed the need for community participation in the process.¹⁰⁸ The NRA acknowledges difficulties in sector planning and prioritisation by local authorities.¹⁰⁹ Prioritisation workshops commenced in 2019 and continued into 2020, and a plan was currently being developed.¹¹⁰

Under the new DFID contract which commenced in 2019, NPA is assisting the NRA in developing national capacity and creating a nationwide prioritisation matrix, with input from fellow DFID consortium partners, HALO Trust and MAG.¹¹¹ However, due to a delay in the MoU process and the resulting reduction in the implementation timeframe of the DFID capacity development project, the planning and prioritization outputs of the DFID-related work plan were reduced.¹¹² Clearance operators expected the issue of a nationwide prioritisation matrix to gather further traction during 2020. As at August 2020, the prioritisation matrix was still being elaborated.¹¹³

At the micro level, prioritisation of clearance tasks in Lao PDR is in part dictated by the wet and dry seasons. During the dry season, operators are able to access and clear paddy fields, while in the wet season, they focus on clearing grazing and community land.¹¹⁴

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

The “Lao PDR UXO Survey Standards” (UXO Survey Standard No. 21/NRA) specify the minimum standards and requirements for the survey of all cluster munition-contaminated areas in Lao PDR.¹¹⁵ The standards were developed in a participatory manner with assistance and input from the mine action community in Lao PDR and were completed in September 2017, before being officially approved by chair of the NRA on 4 July 2018.¹¹⁶ The standards are said to conform to the International Mine Action Standards (IMAS)¹¹⁷ and are fully reflected in the SOPs of clearance operators, who reported that they are well adapted to the local threat and context.¹¹⁸

The NRA plans to formally review the national standards at least every three years, in collaboration with stakeholders, to ensure they evolve to meet changing circumstances and the introduction of new technologies and methodologies.¹¹⁹ MAG said that the NRA had planned to review and revise the national standards in 2020, in collaboration with NGOs, but this was postponed due to the impact of COVID-19.¹²⁰

Prior to 2014, UXO operators in Lao PDR primarily carried out general survey on areas intended for clearance and roving clearance tasks, based on request and reports from villagers.¹²¹ CMRS has resulted in clearance being directed to cluster munition strikes, across land boundaries where necessary, and away from the clearance of areas with low or no CMR contamination. There has been a significant improvement in the number of CMR destroyed per hectare cleared since 2015.¹²² As part of the new CMRS procedure, and the corresponding national standard, non-technical survey is to be carried out on whole villages (i.e. all land within a village boundary), not just individual areas of land, with the aim to identify evidence points for follow-on technical survey. An additional aim during survey is to correct errors or omissions in historical data in IMSMA or in operator files.¹²³

The survey approach has been strengthened over the last couple of years, with more emphasis on the importance of desk assessment of historical data and comprehensive non-technical survey. Technical survey is only carried out based on CMR evidence points and is also conducted on whole villages.¹²⁴ Technical survey works outwards from the initial evidence point, searching no less than 50% of each 50 metre by 50 metre box with a detector, with emphasis on finding a submunition. As soon as a submunition is found, technical survey moves to the adjacent boxes. If cluster munition fragments are found, searching must continue until a submunition is found or at least 50% of the box is covered.¹²⁵

Operators continue to refine their cluster munition survey methodology in a bid to accelerate operations, including using the technique of “skipping boxes”, in which teams finding CMR in one survey box skip one or more of the immediate neighbouring boxes and then survey the next box. Skipping boxes is permitted in the national survey procedure, and where appropriate has now become standard practice for technical survey teams, where the focus is on identifying the boundaries of CHAs.¹²⁶

CHAs are established based on red boxes and include a 50-metre fade-out from the place submunitions are found during technical survey, unless fade-out extends into inaccessible or commercial concession areas (responsibility for survey and clearance in commercial concession areas is then that of the concession holder).¹²⁷

According to the national survey standards, clearance must only be conducted in CHAs, unless either “official agreements with the NRA permit a dispensation” or “the UXO clearance is being paid for by a client and 100% clearance without survey is a requirement of the agreement”.¹²⁸ The NRA maintained the need to retain some flexibility to accommodate donor stipulations which sometimes require

full clearance of UXO in non-CHAs, for development projects such as schools, and there is an official procedure for such instances.¹²⁹ In late 2016, the Prime Minister issued Order No. 43/PM, which stipulates that development projects in provinces and districts affected by UXO must undergo survey and clearance before project implementation, and these development projects must also allocate funding for survey and clearance.¹³⁰

Except in the case of permanently inaccessible land or commercial concession areas, CHAs that are incomplete or have not been created using the technical survey process are not to be entered into IMSMA.¹³¹ Interpretation and understanding as to what constitutes “inaccessible” is not clearly defined and can vary between clearance operators,¹³² but according to the national survey standards, dense vegetation and seasonal flooding are not valid reasons for the non-completion of technical survey.¹³³ Clearance teams deployed to CHAs are required to have the knowledge and necessary equipment to operate in difficult areas such as steep hillsides and dense jungle terrain, which requires strong monitoring mechanisms to ensure that the physical obstacles do not reduce the quality of the survey and clearance work.¹³⁴ The minimum clearance depth in Lao PDR depth is 25cm, which is intended to capture all surface and shallow CMR contamination.¹³⁵ There is said to be recognition of the need for a review of the minimum survey and clearance depth, which currently stands at 25cm. Reviewing empirical data on the depths of submunitions found and their condition (i.e. the degradation factor), would support any review process.¹³⁶

With regard to completion of CHAs/cluster munition footprints, international clearance operators reported difficulty conducting CMRS in certain areas, due to national security or restrictions to access land due to cultural sensitivities and beliefs.¹³⁷ Furthermore, in technical survey tasks in areas of massive contamination, with overlapping strikes, it is not always possible to continue to fade-out, as the confirmed areas extend too far.¹³⁸

OPERATORS AND OPERATIONAL TOOLS

Land release operations in Lao PDR are conducted by a range of implementing partners, which includes humanitarian operators such as the national operator UXO Lao; international NGOs, HALO Trust, HI, MAG, and NPA; commercial clearance operators; and humanitarian teams of the Lao People's Army.¹⁴⁵

With regard to survey capacity in 2019: The Lao Army 58 (humanitarian demining unit) deployed one non-technical survey team, totalling five personnel and four technical survey teams totalling twenty-eight personnel;¹⁴⁶ HALO deployed 2 non-technical survey teams, totalling 4 personnel and 15 technical teams, totalling 134 personnel;¹⁴⁷ HI had 1 non-technical survey team of 2 personnel and 1 technical survey team of 6 personnel;¹⁴⁸ MAG had 4 non-technical survey teams, totalling 19 personnel and 22 technical survey teams, totalling 176 personnel;¹⁴⁹ NPA had 24 CMRS (non-technical survey and technical survey) teams totalling 120 survey personnel (5 searchers per team, excluding team leaders);¹⁵⁰ and UXO Lao had 10 non-technical survey teams totalling 42 personnel (including team leaders) and 16 technical survey teams totalling 177 personnel (including team leaders).¹⁵¹

HI has suggested that as CMRS can be time consuming, clearance could replace CMRS earlier where it is well established that there is CMR contamination, as clearance would cover the entire CHA anyhow, including a 50m buffer zone.¹³⁹ Similarly, in places with severe contamination, UXO Lao is in favour of having the option to forego survey and move directly to clearance.¹⁴⁰

Based on the areas in which it is operational, NPA reported that typically CHAs cover the strike area and submunitions are not being found outside of CHAs polygons during clearance;¹⁴¹ an indication of the effectiveness of evidence-based survey.

MAG uses Evidence Point Polygon (EPP) mapping methodology to support CMRS planning. The technique, pioneered by MAG, uses historical and ongoing operational data from GPS-recorded EOD spot tasks involving submunitions to plot what are termed Initial CHAs (iCHAs). Within the boundaries of iCHAs, including fadeout, no technical survey is required, resulting in time and resources efficiencies. However, in order to be effective, this technique relies on accurate and reliable EOD spot-task data, which is not always available. In areas where MAG is applying EPP mapping, it uses its own EOD data.¹⁴²

According to the NRA, understanding of the CMRS process, especially at the local and field levels, is sometimes limited.¹⁴³ Stakeholders across the mine action sector in Lao PDR agreed on the importance of strengthening coordination with village authorities as an integral component of the survey process, ensuring that communities understand and accept the results of survey. It is especially important that villagers fully understand that, despite demolition of UXO during the CMRS process, CHAs identified through survey remain hazardous until full clearance has taken place, which may not be for many years.¹⁴⁴

Table 2: Operational clearance capacities deployed in 2019¹⁵²

Operator	Manual teams	Total clearance personnel	Machines	Comments
Lao Army 58	5	45	45	Capacity increased to 7 teams from November 2019.
HALO	20	218	0	HALO's clearance capacity increased from 4 to 20 teams from June 2019, due to the DFID funding. Medics are included as HALO has technician medics.
HI	2	10	0	In addition, two drivers are trained in clearance.
MAG	30	240	2	MAG's clearance capacity increased in both Xieng Khouang (11 new teams) and Khammouane (12 new teams) provinces, due to DFID funding. Mechanical assets refer to two JCBs.
NPA	9	108	0	From January-June seven teams were deployed, with two additional teams deployed from July with DFID funding.
UXO Lao	85	850	2*	10 members for each team (1 team leader, 1 deputy team leader, 1 medic, 1 driver, and 6 deminers). *Two Komatsu tracked excavators that have been fitted with an attachment to crush BLU-26s and other small submunition types.
Total		More than 1,471 clearance personnel		

N/K = not known

UXO Lao, the oldest and largest clearance operator in Lao PDR, is a government organisation operating under the Ministry of Labour and Social Welfare,¹⁵³ operating in nine provinces (Attapeu, Champasak, Houaphanh, Khammouane, Luang Prabang, Savannakhet, Saravan, Xekong, and Xiengkhouang).¹⁵⁴ In Luang Prabang, UXO Lao operates with funding from Norway and management support from NPA.¹⁵⁵ A new Director of UXO Lao was appointed in 2019.

The HALO Trust's survey and clearance efforts are focused on Savannakhet province, where in 2019 it operated in the districts of Nong, Phin, Sepon, and Vilabouly, and also expanding operations into Atsaphantong and Phalanxai.¹⁵⁶

HI is conducting survey and clearance in Houaphanh province, where it also provides capacity building support to the provincial NRA, through provision of equipment and training in information management and quality management. HI also conducted a needs assessment mission in Phongsaly Province with the NRA in October 2019, and implements projects in Champasak, Savannakhet and Vientiane Provinces, relating to other fields (such as disability inclusion and health and rehabilitation).¹⁵⁷

MAG is the largest international survey and clearance operator in Lao PDR, and is operational in Xiengkhouang province, in the north, where it is conducting technical survey of all villages as part of the nationwide survey project and Khammouane province in the south where its main focus in 2019 was on surveying 30 priority villages in Boulapha district, one of the most heavily contaminated areas in Lao PDR.¹⁵⁸ In addition to its own teams, MAG subcontracted two NPA technical survey teams from September 2018 to February 2019, in a six-month project under the Norwegian Ministry of Foreign Affairs grant to carry out CMRS in Khammouane province.¹⁵⁹ As at March 2019, MAG had assumed all of the activities under the project and was conducting both survey and clearance.¹⁶⁰

NPA is operational in the four southern and heavily contaminated provinces of Attapeu, Champasak, Saravan, and Xekong. It expanded operations into Champasak from July 2019. As mentioned above, NPA was also subcontracted by MAG to carry out CMRS in Khammouane for six months, after which MAG conducted follow-on clearance of the CHAs created by NPA. This joint, fixed-term project was completed in February 2019. NPA also acts as the project coordinator for Norwegian Ministry of Foreign Affairs' bilateral support to Lao PDR, through UXO Lao's operations in Luang Prabang, in the north of the country.¹⁶¹ In addition to its survey and clearance operations, NPA supports capacity development of the NRA and UXO Lao. NPA increased capacity development support in 2019 under new DFID funding, in particular with respect to information management.¹⁶²

The capacity of the Lao armed forces was increased from five to seven humanitarian demining teams in November 2019, funded by the Lao PDR Ministry of Defence.¹⁶³ According to the NRA, the humanitarian clearance teams of the Lao Army are a valuable asset, conducting survey and clearance in the same way as national and international clearance operators, and with good coordination between the NRA and the army. In addition, the army was being trained to use IMSMA. Lao Army teams (completely separate to the humanitarian teams) not coordinated by the NRA started clearance of UXO to enable construction work on the \$6 billion Laos-China high speed railway.¹⁶⁴

From October 2018 to March 2019, Russian and Lao armed forces worked in partnership to survey and clear 1km² of land in Bolikhamxay province, with equipment supplied by Russia. The partnership project is part of a broader framework of cooperation between the governments and armed forces of the two countries.¹⁶⁵ During October 2018 to March 2019, servicemen from the International Mine Action Centre of the Russian Armed Forces completed joint tasks with members of the U-58 mine clearance team of the Laos People's Army. Russia reporting clearing just over 1km² in Lao PDR, during which 344 items of explosive ordnance were destroyed. As part of the same project, it also reported training 20 deminers from the Lao PDR Army and provided demining equipment.¹⁶⁶ The partnership has continued and in 2020 the Russian and Lao Armed Forces were conducting a joint project in Xiengkhouang province.¹⁶⁷

The use of drones is now permitted to assist CMR operations in Lao PDR, but requires several separate certifications and licenses before approval for an MOU can be sought from the NRA.¹⁶⁸ MAG secured a drone permit in late 2019, but as of June 2020 was not yet using the drone for survey or clearance operations.¹⁶⁹ HI had yet to secure approval from local authorities for the use of drones to secure disposal sites and EOD spot tasks, but was continuing efforts.¹⁷⁰

DEMINER SAFETY

One member of MAG staff was injured in an accident in September 2019 when a BLU3B fuse which was thought to be scrap metal exploded. The quality management (QM) team of the NRA investigated the accident, using an accident collection form. The incident was also thoroughly investigated in line with MAG's SOPs and the findings were shared with the NRA, and other operators were briefed on the incident.¹⁷¹

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2019

According to NRA figures, total release of CMR in 2019 through humanitarian clearance was nearly 46km², with the destruction of 42,085 submunitions. A further 19km² was released through commercial clearance, with the destruction of 1,742 submunitions. See table 4 below.¹⁷² In addition, 36,313 submunitions were destroyed during spot tasks and survey.¹⁷³

The total combined number of submunitions destroyed during non-technical survey, technical survey, clearance, and spot tasks in 2019 was reported as 80,140.¹⁷⁴

SURVEY IN 2019

A total of more than 245.82km² of CHA containing CMR was identified in 2019 (see Table 3);¹⁷⁵ an increase on the equivalent 210km² of CHA containing CMR identified in 2018 (but which excluded the Lao Army 58 data, which was not available).¹⁷⁶ For the purposes of reporting, the 5,195 submunitions destroyed during non-technical survey and 24,591 submunitions destroyed during technical survey in 2019 are already included in the 36,313 submunitions destroyed during spot tasks, in the NRA's annual UXO sector report for 2019.¹⁷⁷

Table 3: Technical survey of CMR-suspected area in 2019¹⁷⁸

Operator	Area surveyed (m ²)	Area identified (m ²)	Submunitions destroyed	Bombs destroyed	Other UXO destroyed	Mines destroyed
Lao Army 58	1,857,500	387,500	72	0	0	0
HALO Trust	41,907,500	13,223,202	2,860	32	648	1
HI	1,567,500	783,750	92	0	8	0
MAG	164,213,561	167,610,011	13,352	0	33	0
NPA	64,593,000	22,648,964	3,153	4	260	0
UXO Lao	60,575,325	41,169,405	5,062	2	1,172	0
Totals	334,714,386	245,822,832	24,591*	38	2,121	1

* Already included in clearance data totals

As at June 2020, HI had identified 44 suspected minefields in 19 villages, during non-technical survey in Houamuang district of Houaphanh province, where it is currently operating.¹⁷⁹ HI was forced to suspend technical survey of CHAs in early 2019, due to the discovery of landmines during clearance of CHAs. Technical survey of the suspended CHAs only recommenced in late 2019, in areas identified as safe from mines, for example where land was in agricultural use. HI also developed a new “clearance while surveying” (CWS) procedure, to allow for safe release of CMR contamination in areas where there is a potential risk of landmines. CWS involves the commencement of full clearance from the CMR evidence point.¹⁸⁰ HI believes that the NRA should coordinate and organise training, and adjust the standards accordingly, with regard to CMRS in areas also affected by mines.

In 2019, NPA nearly doubled the amount of land covered by technical survey, compared to 2018 (when survey only started in June, due to the delay in adopting the national standard). It concluded survey in 270 villages in 2019, compared to 70 the year before.¹⁸¹

CLEARANCE IN 2019

In 2019, a total of nearly 45.77km² of CMR contamination was cleared by humanitarian NGOs and the humanitarian demining teams of the Lao Army, with the destruction of 42,085 submunitions (see Table 4).¹⁸² This is an increase in the area released through clearance, compared to the equivalent 36.7km² cleared in 2018 (but which excluded the Lao Army 58 data, which was not available).¹⁸³

A further 19.30km² was cleared by commercial operators and non-humanitarian teams of the Lao Army, with the destruction of 1,742 submunitions (see Table 4).¹⁸⁴

Table 4: CMR clearance by humanitarian clearance operators in 2019 (NRA data)¹⁸⁵

	Operator	Area cleared (m ²)	Submunitions destroyed	Bombs	Other UXO destroyed	Mines destroyed
Humanitarian clearance operations	Lao Army 58	692,304	245	0	430	0
	HALO Trust	2,070,187	1,047	2	653	0
	HI	499,043	714	1	14	1
	MAG	9,869,304	6,485	7	1,142	0
	NPA	4,017,895	3,924	0	300	0
	UXO Lao	28,620,390	29,670	20	8,542	3
Sub-totals		45,769,123	42,085	30	11,081	4
Commercial clearance operations	Lao Army	4,207,087	0	0	6	0
	AusLao	11,266,445	20	22	37	0
	Milsearch	415,181	295	0	82	0
	MMG	884,987	76	5	265	0
	OUMMA	205,833	1,339	0	0	0
	PL	2,324,658	12	0	5	0
Sub-totals		19,304,191	1,742	27	395	0
Grand Totals		65,073,314	43,827	57	11,476	4

In addition, a further 36,313 submunitions were destroyed during spot tasks and/or during non-technical survey and technical survey by the Lao Army 58 (217 submunitions), HALO Trust (5,111 submunitions), HI (1,644 submunitions), MAG (15,600 submunitions), Milsearch (8 submunitions), NPA (6,224 submunitions), and UXO Lao (7,509 submunitions), along with 113 bombs, 9,958 other items of UXO, and 34 mines.¹⁸⁶

According to Lao PDR’s Article 7 report, a total of nearly 65km² was cleared in 2019 (see Table 5), across 14 provinces, with the destruction of nearly 79,400 CMR, in addition to 40 mines, 170 big bombs, and 21,055 items of other UXO, during clearance, technical survey, and spot tasks.¹⁸⁷ However, as occurred in previous years, this total includes clearance by the Lao Army (separate to the humanitarian teams) and commercial companies, including many tasks which did not contain CMR. Clearance reported in the provinces of

Luangnamtha and Xaisomboun, which are not reported as being of CMR by Lao PDR, suggests this might be the case for 2019 data too. The figures reported in Lao PDR’s Article 7 report differ slightly to those reported in the NRA’s 2019 UXO Sector Annual Report.¹⁸⁸

The amount of land cleared by UXO Lao in 2019, was a slight decrease on the previous year,¹⁸⁹ while HALO, MAG and NPA all increased the amount of area cleared in 2019, compared to the previous year, due to increased clearance capacity as a result of DFID funding. HALO Trust increased clearance output by around 300% (thanks to an increase from four clearance teams in December 2018 to 20 teams by the end of 2019);¹⁹⁰ MAG increased clearance output by 200% compared to 2018;¹⁹¹ and NPA by over 60% compared to the previous year, which it also attributed to more efficient use of detectors and improvement in team management.¹⁹²

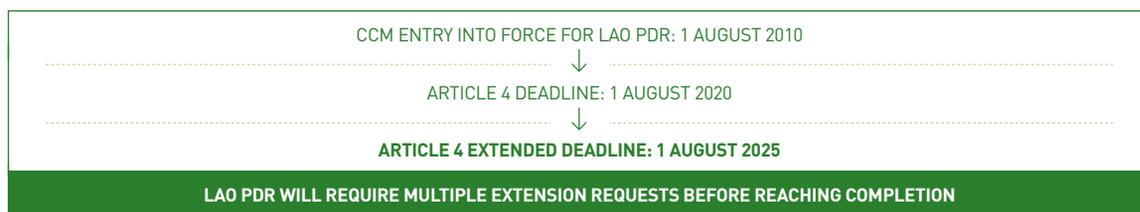
During 2019, NPA piloted the use of new Vallon large-loop detectors for cluster munition survey and clearance as part of efforts to expand the UXO/mine action toolbox and efficiency of operations. Sixty staff were fully trained on the use of these detectors in the field, and initial results showed considerable increases in land release output of up to 50% in certain areas (especially paddy fields). As such, the use of large loop detectors will be expanded throughout NPA's programme in 2020.¹⁹³

All clearance organisations in Lao PDR are required to have a documented internal QM system, covering both quality assurance (QA) and quality control procedures (QC).¹⁹⁴ External QM inspections of clearance organisations are carried out by the NRA.¹⁹⁵ However, the NRA's QM capacity is extremely limited, with only two QM teams to cover sector-wide clearance.¹⁹⁶ The NRA has been seeking funding to increase its QM capacity to four teams.¹⁹⁷

Table 5: CMR clearance by province in 2019¹⁹⁸

Province	Area cleared (m ²)
Attapeu	9,020,372
Bolikhamxay	9,948,568
Champasak	3,002,498
Houaphanh	1,911,402
Khammouane	7,518,270
Luangnamtha	534,070
Luang Prabang	1,153,362
Oudomxay	3,574,921
Saravan	3,081,318
Savannakhet	9,998,173
Vientiane Province	1,250
Xaisomboun	280,680
Xekong	3,056,369
Xiengkhouang	11,869,645
Total	64,950,898

ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM, Lao PDR is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 August 2025, having been granted a five-year extension (the maximum that can be requested per extension request under the CCM) in 2019. Based on current capacity and output, Lao PDR will not reach completion by its deadline and will require multiple extensions to its Article 4 deadline. According to the NRA, based on current resources and land release practices, "progress towards reaching a residual level of contamination as provided for in the CCM is decades away".¹⁹⁹

As at end of 2019, 1,115.5km² of CHA had already been identified through the ongoing nationwide CMRS,²⁰⁰ and as the baseline survey continues the area of confirmed contamination/CHA is expected to continue to increase rapidly. An estimate of the true extent of CMR contamination will not be known until the nationwide CMRS is completed.²⁰¹

Clearance of CMR in Lao PDR will take many years and will require long-term national capacity and funding. According to Lao PDR's 2019 Article 4 extension request, annual clearance output based on current capacity and resources available is approximately 50km² per year on average,²⁰² but annual humanitarian clearance output over the last five years has been significantly less (see Table 6).

Table 6: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2019	45.77
2018	36.20
2017	33.02
2016	30.17
2015*	41.30
Total	186.46

*2014–15 were transition years from request-based to evidence-based clearance, and so include a higher proportion of clearance of land that did not contain CMR.

The NRA has highlighted the challenges in balancing resources for survey and clearance. While nationwide CMRS is essential to quantify the extent of actual contamination in Lao PDR, there is also a need for follow-on clearance in priority areas, which also demands significant resources.²⁰³ Commencement of DFID-funded clearance operations in Lao PDR in 2019 has helped increase clearance output of HALO Trust, MAG, and NPA. In addition, the United States has planned to support increased clearance capacity of both international clearance operators and UXO Lao,²⁰⁴ which MAG and NPA reported will result in an increase in their clearance capacity in 2021.²⁰⁵

In its Article 7 report covering 2019, Lao PDR reports the need to expand and increase the capacity of the Lao PDR Army teams.²⁰⁶ It is only in the past few years that the Government of Lao PDR has allocated funds in its budget for UXO clearance, directed to the Lao Army dedicated teams.²⁰⁷

Lao PDR has identified several challenges in Article 4 implementation. These include insufficient funding (in particular to the NRA and UXO Lao), and the need to strengthen coordination and collaboration among sector stakeholders in order to increase effectiveness and efficiency of the mine action sector in Lao PDR.²⁰⁸ Existing clearance

capacity is not sufficient to address the area of CHA identified for clearance through the ongoing nationwide CMRS. Furthermore, because the number of CMR found per hectare during clearance is now much higher, thanks to application of evidence-based land release methodology, more explosives are needed for the destruction of CMR. This increases operational costs as explosives in Lao PDR are reportedly among the most expensive in the region.²⁰⁹

In addition to insufficient clearance capacity, in its Article 7 report covering 2019, Lao PDR also cites mountainous terrain; unpredictable funding; and outdated clearance equipment as other challenges (e.g. in distinguishing between CMR and scrap metal) and the national authorities highlight the need for more advanced clearance equipment and vehicles.²¹⁰

As mentioned previously, and currently impacting HI's operations in Houaphanh province, discovery of mines during CMRS significantly impedes operations.²¹¹ Other operational challenges in clearance tasks include heavy rains during the wet season; high scrap-metal contamination and fragmentation from other UXO; difficulty accessing tasks due to flooding and vehicles getting stuck in the mud; and the proximity of high-voltage pylons and power lines.²¹²

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

Lao PDR is still determining the extent of its baseline of CMR contamination and is many years from completion, but planning for sustainable national capacity to address previously unknown cluster munition contamination following completion (i.e. residual contamination) will be essential.

- 1 Lao PDR Convention on Cluster Munitions Article 4 deadline Extension Request 2019 (hereafter, CCM Extension Request 2019), Part B, Detailed Narrative, p. 5.
- 2 Interview with Phoukhieo Chanthasomboune, (then) Director, National Regulatory Authority (NRA), Vientiane, 4 May 2016; and NRA, "From Survey to Safety, Quantifying and Clearing UXO Contamination in Lao PDR", March 2016.
- 3 "US bombing records in Laos, 1964-73, Congressional Record", 14 May 1975.
- 4 Article 7 Report (covering 2019), Form F. However, Lao PDR also reported CMR clearance in Luangnamtha and Xaisomboun provinces in 2019, which are not listed as being CMR contaminated.
- 5 CCM Extension Request 2019, Part B, Detailed Narrative, pp. 1 and 5; and Executive Summary, p. 1.
- 6 Email from Mark Frankish, Chief Technical Advisor UXO Unit, UNDP, 26 August 2020. According to the foreword of the 2019 UXO Sector Annual Report, p. iii, a total of 102,112 hectares (1,021km²) of CHA had been identified and registered in the database, but no date was specified.
- 7 Email from Mark Frankish, UNDP, 26 August 2020.
- 8 Interview with Phoukhieo Chanthasomboune, NRA, in Geneva, 7 February 2019.
- 9 CCM Extension Request 2019, Part B, Detailed Narrative, pp. 1, 9, and 24; and Executive Summary, pp. 2 and 4-6.
- 10 Email from Mark Frankish, UNDP, 26 August 2020.
- 11 CCM Extension Request 2019, Part B, Detailed Narrative, pp. 3 and 5; and Executive Summary, p. 4; and Article 7 Report (covering 2019), Form F.
- 12 CCM Extension Request 2019, Part B, Detailed Narrative, pp. 1 and 5.
- 13 *Ibid.*, p. 1.
- 14 CCM Extension Request 2019, Executive Summary, p. 5; and Part B, Detailed Narrative, p. 23.
- 15 2019 UXO Sector Annual Report, NRA, undated, Foreword by US Ambassador and UNDP Resident Representative, Co-Chairpersons of the UXO Sector Working Group, p. iv.
- 16 Email from Mark Frankish, UNDP, 26 August 2020.
- 17 CCM Extension Request 2019, pp. 8 and 9; and Executive Summary, pp. 2 and 4.
- 18 CCM Extension Request 2019, Part B, Detailed Narrative, Part B, Detailed Narrative, p. 1.
- 19 *Ibid.*, p. 18.
- 20 Government Decree no. 67, dated 12 February 2018; CCM Extension Request 2019, Part B, Detailed Narrative, p. 17; and Statement of Lao PDR on National Implementation Efforts, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.
- 21 CCM Extension Request 2019, Part B, Detailed Narrative, p. 18.
- 22 *Ibid.*, p. 26.
- 23 Email from Olivier Bauduin, US PMWRA, 29 September 2020.
- 24 Article 7 Report (covering 2019), Form I.
- 25 Email from Katherine Harrison, NPA, 9 September 2020.
- 26 "Laos: new MDG to tackle UXOs", IRIN, 12 November 2010.
- 27 Statement of Lao PDR on National Implementation Efforts, CCM Seventh Meeting of States Parties, Geneva, 4-5 September 2017; CCM 8MSP, Laos Universalisation statement; and CCM Extension Request 2019, Part B, Detailed Narrative, p. 4.
- 28 2019 UXO Sector Annual Report, NRA, undated, Foreword by Khampheng Saysompheng, Minister of Labour and Social Welfare, Chairperson of the NRA, p. iii.
- 29 Interview with Olivier Bauduin, (then) UNDP, Vientiane, 2 May 2018; and email, 10 July 2018.
- 30 Email from Nigel Orr, Technical Advisor Survey and Clearance, Tetra Tech, 14 June 2019; and "US Renews Partnership with Lao PDR to Build Capacity in UXO Sector", US Embassy in Lao PDR, 31 January 2020, at: bit.ly/2LzmG8J.
- 31 Email from Robert White, Advisor, Strategic Management & Residual Contamination, GICHD, 22 July 2020.
- 32 Interview with Phil Bean, US PMWRA, and Olivier Bauduin, (then with) Sterling International, in Geneva, 14 February 2018; CCM Extension Request 2019, Part B, Detailed Narrative, pp. 4 and 25; and email from Blossum Gilmour, Programme Manager, MAG, 21 March 2019.
- 33 Email from Amanda Shiel, UXO Unit Programme and Partnership Support Officer, UNDP, 4 September 2020.
- 34 CCM Extension Request 2019, Part B, Detailed Narrative, p. 7.
- 35 Emails from Simon Rea, Regional Director, South and South East Asia, MAG, 17 June 2020; Katherine Harrison, Programme Coordinator, NPA, 6 May 2020; and Cameron Imber, Programme Manager, HALO, 7 April 2020.
- 36 CCM Extension Request 2019, Part B, Detailed Narrative, p. 25.
- 37 Emails from Katherine Harrison, NPA, 6 May 2020; and Cameron Imber, HALO, 7 April 2020.
- 38 Email from Katherine Harrison, NPA, 9 September 2020.
- 39 Email from Simon Rea, MAG, 17 June 2020.
- 40 Email from Katherine Harrison, NPA, 6 May 2020.
- 41 Email from Fiona Kilpatrick, HALO Trust, 29 March 2019.
- 42 Statement of the Article 4 Analysis Group (Netherlands, Peru and Sweden) on conclusions of the extension request by Lao PDR, 9th Meeting of States Parties to the Convention on Cluster Munitions, Geneva, 2 September 2019.
- 43 Interviews with international operators, Lao PDR, 1-12 May 2018, and emails from Fiona Kilpatrick, HALO Trust, 29 March 2019; Blossum Gilmour, MAG, 21 March 2019; Aubrey Sutherland, Country Director, NPA, 25 March 2019; and Katherine Harrison, NPA, 6 May 2020.
- 44 Interviews with international operators, Laos, 1-12 May 2018.
- 45 Email from Katherine Harrison, NPA, 9 September 2020.
- 46 Interviews with international operators, Lao PDR, 1-12 May 2018.
- 47 Email from Julien Kempeneers, Humanitarian Mine Action Coordinator, on behalf of Yvon Le Chevanton, Technical Survey/Clearance Operations Manager, HI, 25 March 2020.
- 48 Email from Katherine Harrison, NPA, 9 September 2020.
- 49 Emails from Bouala Thongsavanh, NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018; and interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.
- 50 Emails from Miles Hawthorn, HALO, 23 June 2019; and Katherine Harrison, NPA, 6 May 2020.
- 51 Email from Mark Frankish, UNDP, 26 August 2020.
- 52 UN Lao PDR, "Training of Trainer's Workshop Promotes Gender Equality in UXO Sector", 13 December 2018, available at: bit.ly/3haKMnB.
- 53 ASEAN Regional Mine Action Center (ARMAC), Annual Report 2019, p. 17.
- 54 Emails from Fiona Kilpatrick, HALO Trust, 29 March 2019; Blossum Gilmour, MAG, 21 March 2019; Aubrey Sutherland, NPA, 25 March 2019; Julien Kempeneers, HI, 22 March 2019; and Saomany Manivong, Chief of Programme Office and Public Information, UXO Lao, 10 May 2019.
- 55 Email from Cameron Imber, HALO, 7 April 2020.
- 56 Email from Julien Kempeneers, HI, 25 March 2020.
- 57 Email from Simon Rea, MAG, 17 June 2020.
- 58 Email from Katherine Harrison, NPA, 6 May 2020.
- 59 *Ibid.*
- 60 Email from Saomany Manivong, UXO Lao, 10 May 2019.
- 61 *Ibid.*
- 62 Email from Saomany Manivong, UXO Lao, 3 August 2020.
- 63 Emails from Bouala Thongsavanh, NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018; and Aubrey Sutherland, NPA, 25 March 2019; NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017; interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018; and interview with Hugh Hosman and Marco Heuscher, (then with) Sterling International, Vientiane, 2 May 2018.
- 64 CCM Extension Request 2019, Part B, Detailed Narrative, p. 4.
- 65 Email from Mark Frankish, UNDP, 26 August 2020.
- 66 CCM Extension Request 2019, Executive Summary, p. 1; CCM Extension Request 2019, Part B, Detailed Narrative, p. 6; and CCM Article 7 Report (covering 2019), Form F.
- 67 Emails from Cameron Imber, HALO, 7 April 2020; Simon Rea, MAG, 17 June 2020; and Julien Kempeneers, HI, 25 March 2020.
- 68 "Data errors on IMSMA", Nigel Orr, Technical Adviser, (then with) Sterling International, 26 April 2017.
- 69 Presentation by HALO Trust, Sepon, 10 May 2018.
- 70 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017, p. 26; and Statement of Lao PDR on International Cooperation and Assistance, CCM Seventh Meeting of States Parties, Geneva, 4-5 September 2017; interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018; and interviews with national and international clearance operators, Laos, 1-12 May 2018.

- 71 Emails from Fiona Kilpatrick, HALO Trust, 29 March 2019; and Blossum Gilmour, MAG, 21 March 2019.
- 72 Email from Saomany Manivong, UXO Lao, 28 September 2020.
- 73 Emails from Katherine Harrison, NPA, 6 May and 9 September 2020.
- 74 Emails from Fiona Kilpatrick, HALO Trust, 29 March 2019; Blossum Gilmour, MAG, 21 March 2019; and Aubrey Sutherland, NPA, 25 March 2019.
- 75 Email from Katherine Harrison, NPA, 9 September 2020.
- 76 Emails from Katherine Harrison, NPA, 6 May and 9 September 2020.
- 77 Ibid.; and emails from Cameron Imber, HALO, 7 April 2020; and Julien Kempeneers, HI, 25 March 2020.
- 78 Email from Mark Frankish, UNDP, 26 August 2020.
- 79 Emails from Katherine Harrison, NPA, 6 May 2020; Simon Rea, MAG, 17 June 2020; Cameron Imber, HALO, 7 April 2020; and Julien Kempeneers, HI, 25 March 2020.
- 80 Emails from Cameron Imber, HALO, 7 April 2020; Julien Kempeneers, HI, 25 March 2020; and Katherine Harrison, NPA, 9 September 2020.
- 81 CCM Extension Request 2019, Part B, Detailed Narrative, p. 3.
- 82 Interview with Phil Bean, US PMWRA, in Geneva, 6 February 2018.
- 83 Email from Mark Frankish, UNDP, 26 August 2020.
- 84 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 4 May 2016.
- 85 NRA, "From Survey to Safety, Quantifying and Clearing UXO Contamination in Lao PDR", March 2016.
- 86 CCM Extension Request 2019, Part B, Detailed Narrative, p. 26.
- 87 "Survey and clearance plan for UXO/mine action sector in Lao PDR, 2017-2021".
- 88 Email from Olivier Bauduin, US PMWRA, 29 September 2020.
- 89 Email from Ása Massleberg, GICHD, 23 September 2020.
- 90 "US Renews Partnership with Lao PDR to Build Capacity in UXO Sector", US Embassy in Lao PDR, 31 January 2020.
- 91 Email from Bouala Thongsavanh, NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018; and interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.
- 92 Interview with Phoukhieo Chanthasomboune, NRA, in Geneva, 7 February 2019.
- 93 Email from Amanda Shiel, UNDP, 4 September 2020.
- 94 Email from Olivier Bauduin, US PMWRA, 29 September 2020.
- 95 Statement of Lao PDR on International Cooperation and Assistance, CCM Seventh Meeting of States Parties, Geneva, 4-5 September 2017; and interview with Phil Bean, US PMWRA, and Machut Shishak, Political/Economic Counselor, US Embassy, Vientiane, 3 May 2018.
- 96 Statement of Lao PDR on National Implementation Efforts, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.
- 97 Interview with Phoukhieo Chanthasomboune, NRA, in Geneva, 7 February 2019.
- 98 CCM Extension Request 2019, Part B, Detailed Narrative, p. 26.
- 99 CCM Extension Request 2019, Executive Summary, p. 3; and Part B, Detailed Narrative, p. 4.
- 100 2019 UXO Sector Annual Report, NRA, undated, p. 14.
- 101 CCM Extension Request 2019, Executive Summary, p. 4; and Part B, Detailed Narrative, p. 21.
- 102 CCM Extension Request 2019, Executive Summary, pp. 1, 4, and 6; and Part B, Detailed Narrative, pp. 22 and 25.
- 103 CCM Extension Request 2019, Executive Summary, p. 4; and Part B, Detailed Narrative, pp. 7 and 22.
- 104 Ibid.
- 105 Ibid.
- 106 Interviews with national and international clearance operators, Laos, 1-12 May 2018.
- 107 2019 UXO Sector Annual Report, NRA, undated, Foreword by US Ambassador and UNDP Resident Representative, Co-Chairpersons of the UXO Sector Working Group, p. iv.
- 108 Interviews with international operators, UNDP, and US Embassy in Vientiane, Lao PDR, 1-12 May 2018.
- 109 Email from Bouala Thongsavanh, Assistant to the Director of the NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018.
- 110 Email from Mark Frankish, UNDP, 26 August 2020.
- 111 Emails from Fiona Kilpatrick, HALO Trust, 29 March 2019; and Aubrey Sutherland, NPA, 25 March 2019; and interview with Phoukhieo Chanthasomboune, NRA, in Geneva, 7 February 2019.
- 112 Emails from Katherine Harrison, NPA, 6 May 2020; and Simon Rea, MAG, 17 June 2020.
- 113 Email from Mark Frankish, UNDP, 26 August 2020.
- 114 Interviews with international and national operators, Laos, 1-12 May 2018.
- 115 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017; and CCM Extension Request 2019, Executive Summary, p. 3.
- 116 Emails from Olivier Bauduin, UNDP, 10 July 2018; and Nigel Orr, (then with) Janus Global Operations, 13 July 2018; Interviews with international operators, Lao PDR, 1-12 May 2018; and Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018; and Statement of Lao PDR on National Implementation Efforts, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.
- 117 CCM Extension Request 2019, Executive Summary, p. 2; CCM Extension Request 2019, Part B, Detailed Narrative, pp. 9 and 17.
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- 123 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.
- 124 Ibid.
- 125 Ibid.
- 126 Ibid., p. 17.; Interviews with Neil Arnold, MAG, Phonsavanh, 6 May 2018, and Robby Dehondt, (then with) Sterling International, Sepon, 11 May 2018; and email from Ulric Eriksson, NPA, 1 May 2018.
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- 128 Ibid.
- 129 Interviews with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018 and 7 February 2019, Geneva.
- 130 Statement of Lao PDR on National Implementation Efforts, CCM Seventh Meeting of States Parties, Geneva, 4-5 September 2017.
- 131 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.
- 132 Interviews with international operators, Laos, 1-12 May 2018.
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- 134 CCM Extension Request 2019, Executive Summary, p. 5; and Part B, Detailed Narrative, pp. 24-25.
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- 137 Interviews with Ulric Eriksson, NPA Laos, Saravan, 4 May 2018; and Olivia Meader, HALO Trust, Sepon, 11 May 2018.
- 138 Interview with Neil Arnold, MAG, Phonsavanh, 6 May 2018.
- 139 Email from Julien Kempeneers, on behalf of Yvon Le Chevanton, HI, 25 March 2020.
- 140 Email from Saomany Manivong, UXO Lao, 10 May 2019.
- 141 Email from Katherine Harrison, NPA, 6 May 2020.
- 142 Interview with Neil Arnold, MAG, Phonsavanh, 6 May 2018.
- 143 Email from Bouala Thongsavanh, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018.
- 144 Response to Mine Action Review questionnaire from Olivia Meader, HALO Trust, 11 May 2018; and interview with Olivier Bauduin, UNDP, Vientiane, 2 May 2018.
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- 146 Email from Mark Frankish, UNDP, on behalf of the NRA, 26 August 2020.
- 147 Email from Cameron Imber, HALO, 7 April 2020.
- 148 Email from Julien Kempeneers, HI, 25 March 2020.
- 149 Email from Simon Rea, MAG, 17 June 2020.
- 150 Email from Katherine Harrison, NPA, 6 May 2020.

- 151 Email from Saomany Manivong, UXO Lao, 3 August 2020.
- 152 Emails from Mark Frankish, UNDP, 26 August 2020; Amanda Shiel, UNDP, 4 September 2020; Cameron Imber, HALO, 7 April 2020; Julien Kempeneers, HI, 25 March 2020; Simon Rea, MAG, 17 June 2020; Katherine Harrison, NPA, 6 May 2020; and Saomany Manivong, UXO Lao, 3 August 2020.
- 153 Presentation by Saomany Manivong, UXO Lao, Vientiane, 2 May 2018.
- 154 Email from Saomany Manivong, UXO Lao, 3 August 2020.
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- 156 Email from Cameron Imber, HALO, 7 April 2020.
- 157 Emails from Julien Kempeneers, HI, 25 March 2020.
- 158 Emails from Blossum Gilmour, MAG, 21 March 2019; and Greg Crowther, MAG, 21 June 2019.
- 159 Emails from Blossum Gilmour, 21 March 2019 and Greg Crowther, MAG, 21 June 2019.
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- 168 Email from Katherine Harrison, NPA, 6 May 2020.
- 169 Email from Simon Rea, MAG, 17 June 2020.
- 170 Email from Julien Kempeneers, HI, 25 March 2020.
- 171 Emails from Simon Rea, MAG, 17 June 2020; and Mark Frankish, UNDP, 26 August 2020.
- 172 2019 UXO Sector Annual Report, NRA, undated, pp. 5 and 7.
- 173 Ibid, p. 6.; and email from Amanda Shiel, UNDP, 25 September 2020.
- 174 2019 UXO Sector Annual Report, NRA, undated, p. 7; and email from Amanda Shiel, UNDP, 25 September 2020.
- 175 2019 UXO Sector Annual Report, NRA, undated, p. 6.
- 176 Emails from Blossum Gilmour, MAG, 21 March 2019; Julien Kempeneers, HI, 22 March 2019; Aubrey Sutherland, NPA, 25 March 2019; Fiona Kilpatrick, HALO Trust, 29 March 2019; and Saomany Manivong, UXO Lao, 10 May 2019.
- 177 2019 UXO Sector Annual Report, NRA, undated, pp. 6 and 7; and email from Amanda Shiel, UNDP, 25 September 2020.
- 178 2019 UXO Sector Annual Report, NRA, undated, p. 6. In some instances, survey data for 2019 provided by operators differed to that reported by the NRA in its annual report. HALO Trust reported surveying over 45.78km², identifying nearly 13.38km², and destroying 3,946 submunitions and 1,285 other UXO (email from Cameron Imber, HALO, 7 April 2020); HI reported surveying over 1.80km², identifying more than 0.78km², and destroying 102 submunitions and 8 other UXO (email from Julien Kempeneers, HI, 25 March 2020). HI figures exclude technical survey of incomplete CHAs where operations were suspended due to the discovery of landmines; MAG's reported data corresponded to the NRA's, except that MAG reported clearing 1,427 items of other UXO (email from Simon Rea, MAG, 17 June 2020); NPA reported surveying over 63.67 km², identifying nearly 22.65km², and destroying 5,520 submunitions and 125 other UXO (email from Katherine Harrison, NPA, 6 May 2020); UXO Lao reported surveying nearly 63.74km², identifying nearly 43.70km², and destroying 5,278 submunitions and 1,218 other UXO (email from Saomany Manivong, UXO Lao, 3 August 2020).
- 179 Email from Julien Kempeneers, HI, 29 June 2020.
- 180 Email from Julien Kempeneers, HI, 25 March 2020.
- 181 Emails from Katherine Harrison, NPA, 6 May and 9 September 2020.
- 182 2019 UXO Sector Annual Report, NRA, undated, pp. 5 and 7.
- 183 Ibid., p. 7.
- 184 Ibid.
- 185 Ibid., pp. 5 and 7. HALO Trust reported clearing more than 2.78km² and destroying 2,005 submunitions, 826 other UXO, and 3 anti-personnel mines (email from Cameron Imber, HALO, 28 August 2020); HI reported clearing nearly 0.50km² and destroying 720 submunitions, 15 other UXO, and 1 anti-personnel mine (email from Julien Kempeneers, HI, 25 March 2020); NPA reported clearing nearly 4.19km² and destroying 4,257 submunitions and 299 other UXO (email from Katherine Harrison, NPA, 6 May 2020); UXO Lao reported clearing nearly 28.60km² and destroying 31,693 submunitions, 9,2017 other UXO, and 2 anti-personnel mines (email from Saomany Manivong, UXO Lao, 3 August 2020).
- 186 2019 UXO Sector Annual Report, NRA, undated, p. 6; and email from Amanda Shiel, UNDP, 25 September 2020. HALO Trust reported destroying 1,146 submunitions during spot tasks in 2019; HI 1,644 submunitions; MAG 2,195 submunitions; NPA 806 submunitions; and UXO Lao 8,132 submunitions (emails from Cameron Imber, HALO, 7 April 2020; Julien Kempeneers, HI, 25 March 2020; Simon Rea, MAG, 17 June 2020; Katherine Harrison, NPA, 6 May 2020; and Saomany Manivong, UXO Lao, 3 August 2020).
- 187 Article 7 Report (covering 2019), Form F.
- 188 2019 UXO Sector Annual Report, NRA, undated, pp. 5-7.
- 189 Email from Saomany Manivong, UXO Lao, 3 August 2020.
- 190 Email from Cameron Imber, HALO, 7 April 2020.
- 191 Email from Simon Rea, MAG, 17 June 2020.
- 192 Email from Katherine Harrison, NPA, 6 May 2020.
- 193 Ibid.
- 194 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.
- 195 Ibid.
- 196 Email from Mark Frankish, UNDP, 26 August 2020.
- 197 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.
- 198 Article 7 Report (covering 2019), Form F. There appears to be a small error in the Article 7 report table, the total of which actually sums to 64,950,898m², not 64,950,896m².
- 199 CCM Extension Request 2019, Executive Summary, p. 1; Part B, Detailed Narrative, p. 5; and Statement of Lao PDR, CCM Eighth Meeting of States Parties, Geneva, 3-5 September 2018.
- 200 Email from Mark Frankish, UNDP, 26 August 2020.
- 201 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.
- 202 CCM Extension Request 2019, Executive Summary, p. 3.
- 203 Statement of Lao PDR, CCM Seventh Meeting of States Parties, Geneva, 4-5 September 2017; email from Bouala Thongsavanh on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018; and interview with Phoukhieo Chanthasomboune, NRA, in Geneva, 7 February 2019.
- 204 Interview with Olivier Bauduin, US PMWRA, in Geneva, 13 February 2020.
- 205 Emails from Katherine Harrison, NPA, 6 May 2020; and Simon Rea, MAG, 17 June 2020.
- 206 CCM Article 7 Report (covering 2019), Form F.
- 207 Sweet, "Prioritisation policy, procedures and practices relating to UXO clearance in Lao PDR".
- 208 Statement of Lao PDR on National Implementation Efforts, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.
- 209 CCM Extension Request 2019, Executive Summary, p. 5; and Part B, Detailed Narrative, pp. 24-25.
- 210 CCM Article 7 Report (covering 2019), Form F.
- 211 Email from Julien Kempeneers, HI, 25 March 2020.
- 212 Presentation by HALO Trust, Sepon, 10 May 2018.

ARTICLE 4 DEADLINE: 1 MAY 2021
DEADLINE EXTENSION REQUESTED TO 1 MAY 2026

KEY DATA

CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

9 KM²

SUBMUNITION
CLEARANCE IN 2019

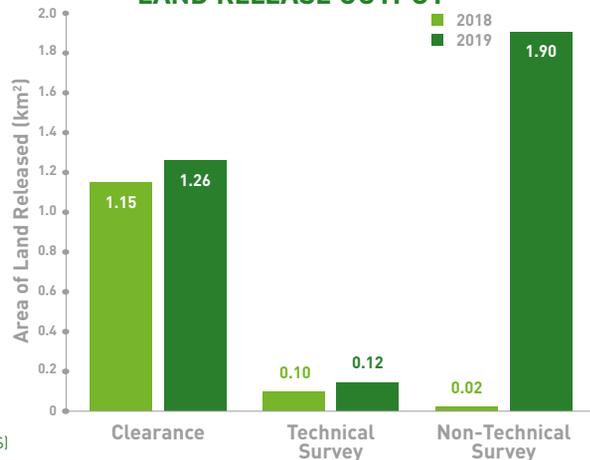
1.26 KM²

SUBMUNITIONS
DESTROYED IN 2019

4,037

(INCLUDING 289 SUBMUNITIONS
DESTROYED DURING SPOT TASKS)

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

The Lebanon Mine Action Centre (LMAC) continued to make strong progress in releasing cluster munition-contaminated area in 2019. Lebanon has requested a five-year extension to its Convention on Cluster Munitions (CCM) Article 4 deadline, and in line with its new National Mine Action Strategy for 2020–25, is aiming to complete clearance of known cluster munition remnant (CMR) contamination by the end of 2025. As part of efforts to re-survey all cluster munition-contaminated areas by the end of 2020 to help inform Article 4 planning, LMAC cancelled 1.90km² in 2019.

RECOMMENDATIONS FOR ACTION

- LMAC should complete non-technical re-survey of all remaining cluster munition-contaminated areas, to help more accurately determine its baseline of contamination.
- Evidence-based non-technical and technical survey should routinely be used to confirm and identify the area of actual CMR contamination prior to clearance.
- The integration and consolidation of the LMAC and Regional Mine Action Centre (RMAC) databases and servers should be completed as soon as possible.
- LMAC should ensure consistent application of national mine action standards (NMAS) across the country with respect to metal detection requirements and the interpretation of metal-free.
- LMAC should determine how it plans to address CMR contamination in especially difficult terrain, such as deep canyons and very steep cliffs.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2019)	Score (2018)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	7	6	LMAC conducted a significant amount of non-technical survey in 2019, as part of efforts to complete re-survey of all CMR tasks by the end of 2020. This will further improve the accuracy of LMAC's estimate of CMR contamination, following its database review and readjustment of the CMR baseline in 2018. The baseline, however, still includes CHAs with an estimated standard size of 10,000m ² (for hazardous areas recorded without defined boundaries), whose true size may differ markedly. For the purposes of Article 4 planning LMAC has increased the standard sized area estimation by 250% to factor in fadeout.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	9	9	LMAC continued to demonstrate effective programme management in 2019, maintaining biannual Mine Action Forum meetings as an effective mechanism in which to discuss challenges with, coordinate, and present progress in Article 4 implementation to all relevant stakeholders. It also held quarterly technical working groups (TWG) meetings. Regrettably, due to political and financial unrest in Lebanon, none of the 50 billion Lebanese Pounds (approximately US\$33 million) for CMR clearance over five years (2019–23), was allocated in 2019. However, the capacity of LMAC, which is nationally funded, was increased with the establishment of the RMAC in the north-east and to meet the increased demand for training courses.
GENDER AND DIVERSITY (10% of overall score)	7	7	LMAC has taken action to mainstream gender in its mine action programme, including through data disaggregation, inclusive survey, and participation in courses at its regional demining school. Gender and diversity considerations are included in the National Mine Action Strategy 2020–25 and LMAC has appointed a new gender focal point who will help mainstream gender-sensitive policies and procedures, and monitor their implementation, in the mine action centre.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	7	7	During 2019, efforts continued to integrate RMAC's information management database with the LMAC server and to fully synchronise the two databases. LMAC is also in the process of migrating to Information Management System for Mine Action (IMSMA) Core and is checking and cleaning data as part of the process.
PLANNING AND TASKING (10% of overall score)	8	8	LMAC has a new National Mine Action Strategy for 2020–25. The new strategy, which was elaborated with support from the EU-funded UNDP project, in a participatory approach with all stakeholders, includes an objective to complete clearance of all known cluster munition-contaminated areas by the end of 2025.
LAND RELEASE SYSTEM (20% of overall score)	8	8	Revised NMAS adopted in 2018 became effective from the start of 2019. Further revisions to the standards were made in late 2019 to incorporate updates in IMAS related to improvised explosive device disposal (IEDD) and risk assessment. They include enhancements such as a reduction of the required clearance depth for CMR, improvements to the fadeout specifications, and, for the first time, use of technical survey for CMR tasks. Land release methodologies for CMR are now more efficient as a result of these changes. In addition, LMAC has increased its non-technical capacity and it now permits organisations to conduct non-technical survey of their tasks prior to initiating clearance.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	7	6	In 2019, LMAC cancelled nearly 1.9km ² of cluster munition-contaminated area, as part of efforts to complete re-survey of CMR tasks by the end of 2020. This was significantly more cancellation than the previous year. Clearance output of more than 1.2km ² in 2019 was a modest increase on output in 2018, as remaining clearance tasks are increasingly occurring on more difficult terrain. Lebanon has submitted a request for a five-year extension to its Article 4 deadline to 1 May 2026, and plans to complete clearance by the end of 2025.
Average Score	7.5	7.1	Overall Programme Performance: GOOD

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- Lebanon Mine Action Authority (LMAA)
- Lebanon Mine Action Center (LMAC)
- Regional Mine Action Centers (RMAC-N and RMAC-RB)

NATIONAL OPERATORS

- Lebanese Armed Forces (LAF)/Engineering Regiment (ER)
- Lebanese Association for Mine and Natural Disaster Action (LAMINDA)
- Peace Generation Organization for Demining (POD)

INTERNATIONAL OPERATORS

- DanChurchAid (DCA)
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)

OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Development Programme (UNDP)
- UN Interim Force in Lebanon (UNIFIL)
- United Nations Mine Action Service (UNMAS)

UNDERSTANDING OF CMR CONTAMINATION

At the end of 2019, Lebanon had 814 confirmed hazardous areas (CHAs) containing CMR covering a total area of almost 9km² (see Table 1).¹ This is a decrease in CMR contamination compared to the end of 2018, when 864 CHAs were confirmed to contain CMR, over a total area of more than 11.8km²,² and is mostly due to cancellation and clearance of CMR in 2019.

Table 1: Cluster munition-contaminated area by province (at end 2019)³

Province	CHAs	Area (m ²)
Beqaa	98	602,715
Janoub and Nabatiyeh (South)	657	8,016,896
Jabal Loubnan (Mount Lebanon)	57	322,370
Shimal (North)	2	20,000
Totals	814	8,961,981

In 2018, Lebanon reviewed its baseline of CMR contamination and changed the way it reflects clearance data. According to LMAC, a significant problem had been a difference in the way land release figures were recorded between the RMAC and LMAC. In many cases, actual clearance output of tasks is greater than the original task size recorded in the database, due to large fade-out requirements.⁴ Upon task completion, LMAC was reducing its initial baseline by the original task size in the database, whereas RMAC was adding the additional cleared area in excess of the task size to the initial database and then reducing the whole size of the clearance task from the database. LMAC has now corrected the national CMR baseline retrospectively to reflect its approach.⁵

Also as part of its 2018 database review process, LMAC decided to change the standard size of CHAs with no defined boundaries (and in which there is no mine threat), to 10,000m², based on the fadeout distance for cluster munition clearance and LMAC's experience to date.⁶ But operators have found that the standardised 10,000m² (per task) area is in some instances an overestimate and in other instances an underestimate of the actual task size.⁷ LMAC, however, believes that this is the best approach for this type of hazardous area and to be conservative in its Article 4 planning it has increased the size of these areas by 250% to factor in fadeout.⁸

The accuracy of the baseline is further complicated by the fact that clearance undertaken in the aftermath of the 2006 cluster munition strikes was not conducted in accordance with the International Mine Action Standards (IMAS) and was mostly limited to rapid surface clearance.⁹ This included emergency clearance undertaken by the Lebanese Armed Forces (LAF) in and around infrastructure, schools, and roads, and clearance contracted out to non-governmental organisations (NGOs), commercial operators, and government groups by the UN Mine Action Coordination Centre – south Lebanon (MACC-SL), which assumed the role of coordinating CMR clearance in 2007, in cooperation with the National Demining Office (now known as LMAC).¹⁰

LMAC's recent efforts to adjust its database baseline to one that more accurately estimates total CMR contamination is a positive step, but the true size of these clearance tasks will vary and is hard to estimate without survey.¹¹ It is, therefore, also extremely positive that LMAC is re-surveying, through non-technical survey, all remaining CMR tasks, which it hoped to complete by the end of 2020.¹² In addition, technical survey will be required on tasks where the exact location of CMR contamination is not known and with a view to locating evidence points (i.e. submunitions), from where to start clearance.¹³

Previously, Mines Advisory Group (MAG) undertook a pre-clearance non-technical survey of 443 CMR clearance tasks between September 2013 and April 2014,¹⁴ which resulted in MAG recommending 96 tasks for cancellation, covering an estimated 2.8km².¹⁵ LMAC decided to cancel 51 of these, totalling an area of 1.7km².¹⁶ The remaining tasks now being cancelled, where appropriate, as part of the non-technical survey project in 2019 and 2020,¹⁷ and where required, are subject to technical survey to determine whether or not CMR contamination actually exists.¹⁸

CMR contamination is largely the result of the conflict with Israel in July–August 2006. During the conflict, Israel fired an estimated four million submunitions on south Lebanon, 90% of which were dispersed in the last 72 hours of the conflict.¹⁹ An estimated one million submunitions failed to explode.²⁰ Some Israeli bombing data have been provided – most recently through UN Interim Force in Lebanon (UNIFIL) – but has proved to be very inaccurate.²¹ In addition, some CMR still remain from earlier conflicts with Israel in 1978 and 1982,²² and there is a small amount of new CMR contamination on the north-east border with Syria, resulting from spill-over of the Syrian conflict onto Lebanese territory in 2014–17.²³ Types of submunitions found in Lebanon include A0-2.5 RT, BLU-18, BLU-26, BLU-61, BLU-63, M42, M43, M46, M77, M85, MK118, and MZD-2.²⁴ Some areas contain unexploded submunitions resulting from both ground-launched and air-dropped cluster munitions, which can further complicate the picture.²⁵

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Lebanon is also contaminated by other unexploded ordnance (UXO), booby-traps, and anti-personnel mines (see Mine Action Review's *Clearing the Mines 2020* report on Lebanon for more information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Established in 1998 by the Council of Ministers, the Lebanon Mine Action Authority (LMAA) is the responsibility of the Ministry of Defence and is chaired by the Minister of Defence. The LMAA has overall responsibility for Lebanon's mine action programme. In 2007, a national mine action policy outlined the structure, roles, and responsibilities within the programme, and LMAC was tasked to execute and coordinate the programme on behalf of the LMAA.²⁶

LMAC, part of the LAF, is based in Beirut. Since 2009, the RMAC-N, based in Nabatiyeh, which is a part of LMAC, has overseen operations in south Lebanon and western Beqaa, under LMAC supervision.²⁷ At the end of 2018, a new regional centre, RMAC-RB, was established in the north-east of Lebanon in the village of Ras Baalbek, to oversee the mine action operations in this region.²⁸ To a large extent LMAC has a well-functioning capacity, but, as they are army officers, the senior management of LMAC and RMAC are typically routinely rotated (every couple of years), which can hamper development and continuity in the management of the three mine action centres.²⁹ The current director of LMAC started in March 2019, replacing his predecessor who had served as director for two years.³⁰ LMAC increased its capacity in 2019 with the establishment of RMAC-RB and to meet the increased demand for training courses.³¹

A new standing operating procedure (SOP), developed for LMAC in 2020, was reported to be in its final stage of approval as at March 2020. This SOP specifies the roles of each section of LMAC and clarifies the responsibilities and cooperation between sections. It is hoped that it will help new LMAC staff and reduce the impact of staff rotations.³²

UN Development Programme (UNDP) personnel, funded by the European Union (EU), are also seconded to LMAC, providing support for capacity building, including transparency reporting, strategic reviews, Information Management System for Mine Action (IMSMA) database entry, community liaison, and quality assurance (QA). In 2019, there was one team of six UNDP personnel supporting LMAC.³³

EU funding for UNDP institutional support to LMAC, which had been due to finish at the end of 2019, but which would have resulted in a gap in capacity development,³⁴ was extended for the first six months of 2020. During this period, UNDP was providing expertise and support on operational efficiency, prioritisation, research into clearance in difficult terrains, and risk education for Syrian refugees.³⁵ With regard to difficult terrain, the Geneva International Centre for Humanitarian Demining (GICHD) will also partner with LMAC on a study that was expected to start in the third quarter of 2020.³⁶

In addition, UNDP also mobilised funds for the first half of 2020 from the Norwegian Embassy, in order to: assist with the strengthening of national capacity to document and prioritise clearance operations in line with Mine Action Forum recommendations; help LMAC to meet its national, regional, and international obligations and coordination functions and ensure follow-up of Mine Action Forum action points; and to support LMAC in effectively communicating its results and establishing partnerships.³⁷ LMAC will seek to extend UNDP's support beyond the second quarter of 2020.³⁸

A "Mine Action Forum" has been established in Lebanon in close partnership between LMAC and Norway. The forum was the result of a two Lebanon-focused workshops, the first of which took place in November 2016, convened by Norway and the Netherlands in their capacity as CCM Co-ordinators on clearance, and facilitated by the GICHD. The second workshop, in January 2018, convened in partnership between Norway and LMAC, resulted in the establishment of the Mine Action Forum. The forum meets twice a year, with UNDP designated as the secretariat to follow up on action points and develop progress reports.³⁹ It provides an informal platform for LMAC to continue open dialogue and information sharing between the national authorities, implementing partners, and donors, on priorities and needs for the survey and clearance of cluster munitions and landmines in Lebanon.⁴⁰ It is an example of what a "Country Coalition" under the CCM could look like, but in the case of Lebanon it was agreed the forum should be broadened to include landmines, and not just CMR.

As of writing, the most recent Mine Action Forum was held on 22 January 2020, during which LMAC presented and discussed the new 2020–25 national mine action strategy, operational efficiencies, and a new explosive ordnance risk education (EORE) project.⁴¹ LMAC also presented its Article 4 deadline Extension Request plan at the January 2020 Mine Action Forum meeting.⁴²

The Mine Action Forum in Lebanon has resulted in better coordination and greater transparency as well as on enhancements to land release methodology, enshrined in the revised NMAS. These measures have all served to strengthen donor confidence and mobilise additional resources.⁴³

There is good coordination and collaboration between LMAC/the RMAC and clearance operators, with the operators consulted before key decisions are taken.⁴⁴ International clearance operators reported that an enabling environment exists for mine action in Lebanon, with no obstacles regarding visas for international staff, approval of memoranda of understanding (MoUs), or the importation of equipment.⁴⁵

A technical working group (TWG) was established in March 2018, under the auspices of LMAC, based on recommendations of the Mine Action Forum and following the release of the revised NMAS. The TWG, which meets quarterly, provides a useful forum for LMAC/the RMACs to meet collectively with clearance operators to review and discuss field issues, including implementation of revisions to the NMAS, identify issues, and suggest further NMAS revisions and potential ways to improve operational efficiencies.⁴⁶

As in the previous year, Lebanon reported contributing US\$9 million annually in 2019 towards mine action in Lebanon (for both mine- and CMR-related work): to support costs associated with the running of LMAC (facilities and staff); the LAF Engineering Regiment companies working in demining (four teams, two of which work on CMR; in addition to mechanical and mine detection dog (MDD) support); risk education; and victim assistance.⁴⁷

In addition, the Lebanese government had committed an additional 50 billion Lebanese Pounds (approximately US\$33 million) to CMR clearance over five years (2019–23), to increase the number of CMR clearance teams and help meet Article 4 obligations under the CCM. Corresponding clearance contracts with DanChurchAid (DCA), LAMINDA and POD were finalised at the end of 2018, but signature by the Minister of Defense was delayed due to the announcement of a new government at the end of January 2019. NGOs took the decision to go ahead and begin CMR clearance operations in February 2019, using their own funds. However, they subsequently elected to stop operations after three months, pending formal signature of the clearance contracts by the Minister of Defence.⁴⁸ Unfortunately, due to political and financial unrest in Lebanon, the clearance contracts were not signed and none of pledged additional national funding was spent during 2019.⁴⁹ LMAC is expecting that an average

of US\$3 million national funding for CMR clearance will be allocated to CMR clearance yearly,⁵⁰ less than half of what had been previously pledged.

A Regional School for Humanitarian Demining in Lebanon (RSHDL) has been established in partnership between Lebanon and France, with technical mine action support provided by a French military officer, to support the development of the curriculum on explosive ordnance disposal (EOD, levels 1, 2, and 3) in compliance with IMAS.⁵¹ The Regional School became operational in 2017, enabling civilian and military personnel from Arab and other countries to benefit from an array of courses and workshops on demining.⁵² In 2019, it provided training to national, regional, and international participants, including courses on non-technical survey, EOD, operational efficiency, and gender and diversity.⁵³

GENDER AND DIVERSITY

The gender and diversity-related policy applied at LMAC is that of the LAF military rules. According to LMAC, all its personnel are familiar with these rules and the specific provisions related to gender equality and inclusion, safeguarding, and behavioural codes.⁵⁴

LMAC reported that it has taken several actions to mainstream gender in its implementation plan, including through inclusive policies, data disaggregation in risk education and victim assistance, and participation in courses at the RSHDL.⁵⁵ In agreement with LMAC, the GICHD conducted a gender and diversity capacity assessment mission to Lebanon in July 2019. The aim was to reinforce a sustainable national capacity for gender and diversity mainstreaming in the LMAC and contribute to the achievement of gender equality and inclusion.⁵⁶ In August 2019, LMAC reported that it had appointed a new gender focal point, who will help mainstream gender-sensitive policies and procedures and monitor their implementation in the mine action centre and across the national programme.⁵⁷

Lebanon's new National Mine Action Strategy 2020–25, approved by the LMAA in June 2020, includes considerations on gender and diversity.⁵⁸ Of the five objectives in the new strategy, the fifth states that, "The specific needs and perspective of women, girls, men and boys from all groups of society are considered, in order to deliver an inclusive HMA [mine action] response". LMAC also acknowledges in the strategy that mine action "is a male-dominated environment and we have therefore a particular responsibility to empower women and ensure that we have a gender sensitive approach to our work".⁵⁹ Gender and diversity considerations will be further detailed in LMAC's strategic implementation plan, which was being elaborated in the course of 2020, to support the new strategy.⁶⁰

Of LMAC's 157 personnel, 16 (10%) are female. The number of staff at LMAC is determined by the LAF headquarters but LMAC states that it consistently requests that the percentage of women be increased.⁶¹ With respect to operational roles, two women work for the operations section and one woman is a member of the non-technical survey team. With respect to managerial/supervisory level positions at LMAC, six women work in management and five in information technology (IT).⁶²

LAMINDA did not report the percentage of female deminers, but did report that women are employed in LAMINDA's clearance teams and that one female staff member is in a managerial position, as clearance team leader.⁶³

MAG, Norwegian People's Aid (NPA), and POD all reported having gender policies in place.⁶⁴

MAG reported that it consults women during survey and community liaison activities; that all its community liaison teams are mixed; and that its data is disaggregated by sex and age. Overall, women account for 16% of operational roles in MAG's survey and clearance teams in Lebanon, and 28% of managerial level/supervisory positions.⁶⁵

NPA is in the process of developing an implementation plan for its organisational gender policy for Lebanon, based on recommendations from the GICHD. It reported making progress in encouraging more women to apply, resulting in a 5% increase in the proportion of women hired for operational roles. NPA planned to conduct training in gender equality, safeguarding, and code of conduct in 2020.⁶⁶ NPA reported that its survey and community liaison teams are gender balanced, and 20% of employees in operational roles in NPA's survey and clearance team in the south are women as are 32% in its Aarsal operations, which commenced in 2018. A total of 20% of NPA's managerial level/supervisory positions are held by women. NPA disaggregates data by sex and age.⁶⁷

Women and children are consulted during survey and community liaison activities.⁶⁸ According to LMAC, Lebanon's baseline of CMR contamination has been developed over many years. As per Lebanon's NMAS, non-technical survey teams consult with women, girls, boys, and men, including, where relevant, minority groups, in order to make sure all available information is included.⁶⁹

INFORMATION MANAGEMENT AND REPORTING

During 2019, efforts continued to integrate RMAC's information management database with the LMAC server and to synchronise the two databases.⁷⁰ Harmonisation and consolidation of the LMAC and RMAC databases will enable IMSMA reports to be sent directly to LMAC for approval, improving the accuracy and efficiency of the process. The integration will also help better protect data while decreasing maintenance costs.⁷¹ As at March 2020, harmonisation of the two databases had been completed and servers installed to maintain the database, but LMAC was awaiting resolution of a technical issue to ensure the two servers are properly linked.⁷²

Furthermore, LMAC is migrating from its current version of IMSMA (New Generation) to IMSMA Core, which it hopes will help facilitate the production of clearer reports that can be translated into dashboards for stakeholders, including donors, to monitor and follow.⁷³ As at March 2020, migration of data to IMSMA Core had begun, but the process takes time.⁷⁴ In the process of migration, LMAC has discovered some overlap between its records of Dangerous Areas and minefields. Non-technical survey teams are therefore checked these overlaps on the ground and the database clean-up was completed in July 2020.⁷⁵ LMAC personnel will receive GICHD training on IMSMA Core and LMAC planned to launch it by the end of 2020.⁷⁶

Operators believe that IMSMA Core will enable better direct access to data, which will enhance understanding of broader CMR contamination and assist in identifying tasks where further non-technical and technical survey could be valuable.⁷⁷

Disclaimed areas in the database are those for which the owner of the land has not granted permission for implementing agencies to conduct land release operations. In such cases, the land owner has to sign a personal disclaimer taking full responsibility for any kind of explosive remnant of war (ERW) hazard including CMR on the land. LMAC is trying to end the disclaimers, the records of which were mainly taken before 2009. There is a high probability that the sites will be cancelled during the re-survey currently in process, when the owners are found to be using the land. If clearance is required, survey and community liaison teams, along with local authorities, will encourage landowners to allow clearance in order to ensure the land is free from hazards and will provide assurance of measures that will be taken to prevent disruption to the use of the land.⁷⁸ According to its 2020 Article 4 deadline extension request, there were 116 disclaimed areas on the database, totalling 338,932m².⁷⁹

Lebanon's latest revision of NMAS, allows technical survey of CMR-contaminated areas. By May 2019, LMAC had updated data forms to allow for the correct reporting of land reduced through technical survey.⁸⁰ However, NPA reported some initial confusion over terminology when reporting on the output of non-technical survey.⁸¹

According to LAMINDA, there are now daily reporting sheets for items and clearance.⁸² MAG started work on "survey123" in 2019, during which it reviewed data forms and data flow, in preparation for the launch of the project in the second half of 2020.⁸³

PLANNING AND TASKING

In September 2011, LMAC adopted a strategic mine action plan for 2011–20.⁸⁴ The plan called for clearance of all CMR by 2016 and for completion of mine clearance outside the Blue Line by 2020. Both goals were dependent on capacity, but progress fell well short of planning targets, which were not met.

LMAC has developed a new National Mine Action Strategy for 2020–25, with support from the EU funded UNDP project, in a participatory approach with national and international implementing agencies, mine action NGOs, UN agencies, and donors.⁸⁵ One of the objectives of the new strategy is to complete clearance of all known cluster munition contaminated areas by the end of 2025.⁸⁶ The new strategy was signed by the LMAA in June 2020. A mid-term and final external review are planned, as well as annual reporting on progress.⁸⁷ LMAC is also elaborating a strategic implementation plan for 2020–25, based on the new strategy and in collaboration with implementing partners, to operationalise the new strategy with objectives, outputs, and indicators. LMAC expected to complete the implementation plan in August 2020. LMAC also plans to develop annual plans.⁸⁸

Lebanon submitted a request to extend its Article 4 deadline, which will be considered by States Parties at the CCM Second Review Conference in November 2019. Clearance operators were consulted by LMAC on the extension request, including in a workshop prior to the request being elaborated.⁸⁹ Lebanon has requested a five-year extension to 1 May 2026, but aims to complete clearance by the end of 2025, in line with its new strategy.

LMAC planned to complete re-survey (non-technical) of all remaining CMR tasks by the end of 2020 and prior to the start of the new extension period (May 2021). It estimates that after cancellation of uncontaminated areas, approximately 8.7km² of CMR-contaminated area will require clearance (including technical survey, where appropriate). The projected clearance rates in Lebanon's extension request are based on an average of the last three years and while LMAC anticipates that application of the new, more efficient, methodologies adopted will increase this average, it also expects that any gain will be offset by the more difficult terrain of land which now remains to be cleared.⁹⁰

Table 2 outlines the predicted annual clearance output and capacity up to the end of 2025. Planned output takes into account fadeout and the possible increase in the area to be cleared in the 10,000m² sites, using a factor of 2.5.⁹¹ LMAC plans to conduct technical survey, where appropriate, but has not provided predictions of the amount of area expected to be reduced through technical survey.

Table 2: Planned CMR clearance and capacity⁹²

Year	2021	2022	2023	2024	2025
Cleared m ²	1.9	1.9	1.9	1.5	1.5
Teams	26	26	26	21	21

Reprioritisation is needed, as most of the remaining tasks fall between priorities 2 and 3, and reprioritisation has not occurred for some time.⁹³ According to LMAC, increased urbanisation; clearance of the Blue Line; spill-over from Syria creating new contamination, including improvised explosive devices (IEDs); and the sudden increase in residents, have combined to result in a change to overall clearance priorities. LMAC plans to work with operators to develop an updated prioritisation approach, including focusing on the socio-economic impact of contamination.⁹⁴

LMAC will use updated information from the non-technical re-survey of CMR tasks to reprioritise tasks based on humanitarian and socio-economic impact.⁹⁵

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Lebanon developed its first NMAS in 2010.⁹⁶ Adopting a consultative and constructive approach with its implementing partners, in 2017, LMAC initiated a project, supported by UNDP and other partners, funded by the EU, to revise and harmonise national standards with IMAS, as well as to add new modules not present in the original standards.⁹⁷ The revised NMAS, formally approved in March 2018, have a solid focus on land release and evidence-based decision-making, in line with the IMAS, and based on recommendations and analysis of operational data. Notable enhancements in relation to battle area clearance (BAC) included reduction of the required clearance depth of CMR from 20cm to 15cm changes to fadeout, and were made effective from 1 January 2019.

The minimum fade-out distance from any pertinent evidence point is agreed with LMAC, depending on the topography of the task. In the absence of an agreed fadeout, the default is a 50-metre radius from the last evidence point.⁹⁸ In addition, and of particular significance, the new NMAS now allow technical survey to be used for CMR tasks. In 2019, standards on the use of explosives detection dogs (EDDs) for technical survey were incorporated into IMAS, following a successful trial in 2018.⁹⁹ These changes to the NMAS should significantly improve the efficiency of CMR land release in Lebanon, potentially by as much as 30%, according to LMAC.¹⁰⁰

Historically, clearance tasks assigned to operators by LMAC were typically deemed to already reflect non-technical survey data, and LMAC did not formally permit operators to conduct additional survey on assigned tasks prior to clearance.¹⁰¹ In the last couple of years, LMAC has increasingly begun to rely on non-technical survey and technical survey to more accurately define the presence or absence of an explosive threat.¹⁰² In 2019, extensive non-technical survey was conducted by LMAC, in addition to some non-technical survey by MAG, and LMAC aimed to have re-surveyed all CMR tasks by the end of 2020 in order to have a clearer estimation of the remaining contamination for Article 4 planning.¹⁰³

Results from non-technical survey will also help determine which tasks, on a case-by-case basis, are appropriate for technical survey (systematic or targeted).¹⁰⁴ As the use of EDDs for technical survey requires special operating conditions (temperature, wind speeds, levels of vegetation etc.), manual technical survey will also be applied on a case-by-case basis. Each decision over the percentage and type of technical survey has to be approved by the operations section head in LMAC.¹⁰⁵

LMAC has also agreed with the NGO operators the option for each to have a non-technical survey team to re-survey each new task prior to starting clearance. As at March 2020, the NGOs had non-technical survey teams or were negotiating with donors to establish them,¹⁰⁶ and where necessary, clearance operators are now permitted to conduct non-technical survey prior to clearance operations.¹⁰⁷

Furthermore, operators now have an opportunity to discuss specific land release considerations with LMAC for assigned clearance tasks, which arise during the pre-clearance assessment stage of operations. Such discussions might result in the refining of the task size or approved land release specifications (e.g. use of technical survey, for all or part of the task, rather than full clearance).¹⁰⁸ International NGOs see collaboration between LMAC and clearance operators on application of evidence-based non-technical survey and technical survey, where needed, as being essential to targeted clearance.¹⁰⁹

Further updates made to Lebanon's NMAS in late 2019, which included the introduction of a new NMAS (07.14) on Risk Assessment and a new standard (09.31) on IED Disposal (IEDD), which were adopted in March 2020.¹¹⁰ With regard to technical survey, the NMAS no longer specifies a minimum percentage of area over which technical survey must be conducted, which permits LMAC to reduce technical survey when appropriate, especially on the Blue Line minefields and for CMR.¹¹¹ The NMAS also allows for areas under full clearance to be reduced (or in part reduced), based on information gathered during clearance, as well as for the original task boundaries to be changed based on experience during clearance. Changes were also made to the NMAS (09.31) on demolitions.¹¹² A continuous review of the national standards is executed based on field expertise and recommendations from implementing agencies and on updates of the IMAS.¹¹³

NPA noted that a more uniform approach is needed to the enforcement of NMAS across Lebanon, citing an example of LMAC QA teams issuing non-conformity reports when any metal is found subsequent to clearance, while the NMAS requires metal to be removed only if it is larger than the respective test-piece.¹¹⁴

NPA has found that there can also be a relatively large time lag between completion of clearance and final handover of land back to the community, an issue which, it believes, should be explored and addressed.¹¹⁵

OPERATORS AND OPERATIONAL TOOLS

In 2019, CMR clearance was conducted by international operators DCA, MAG, and NPA; and national operators POD and LAMINDA. Clearance capacity fluctuated throughout 2019, but totalled around 25 NGO clearance teams.¹¹⁶ In addition, the Engineering Regiment of the LAF also conducted CMR clearance in 2019.¹¹⁷

The LAF Engineering Regiment has two BAC teams and in addition, three of the Engineering Regiment and Combat Engineering companies cover rapid-response callouts across Lebanon.¹¹⁸ The LAF has seven MDD teams¹¹⁹ for technical survey and for use as a secondary asset supporting clearance, but none of these is used for CMR. Through the Engineering Regiment, LMAC provides mechanical assistance to clearance operators that lack this capacity.¹²⁰ In Lebanon, machines are mostly used as secondary assets to support clearance teams (e.g. for ground preparation, rubble removal, or for fadeout); in areas where manual clearance is difficult; and for technical survey and low threat hazardous area (LTHA).¹²¹ Often, however, the terrain is not suitable for machines.

Table 3: Operational CMR clearance capacities deployed in 2019¹²²

Operator	Manual teams	Total clearance personnel*	Dogs and handlers	Machines**	Comments***
DCA	3	N/K	0	0	
LAMINDA	3	24	0	0	
LAF/ER	2	16	0	1	
MAG	12	72	0	3	1 mechanical team
NPA	4	24	0	0	NPA does not deploy dogs for clearance, but does have 2 EDDs and 2 handlers deployed for technical survey
POD	4	44	0	0	
Totals	28	180	0	4	

* Clearance personnel may also conduct technical survey. ** Excluding vegetation cutters and sifters. *** Clearance teams also work on technical survey tasks. N/K = not known.

With respect to non-technical survey capacity, in 2019, there were six non-technical survey teams:¹²³ LMAC had three teams,¹²⁴ MAG had two teams, with a total of four personnel;¹²⁵ and NPA had one team with three personnel.¹²⁶

With respect to technical survey, MAG has one team of five personnel¹²⁷ and NPA had one technical survey team of four personnel (including 2 EDD dog handlers and two manual searchers).¹²⁸ NPA's technical survey team is now fully integrated into NPA operations and is being tasked by the RMAC as follow-up to previous non-technical survey, to confirm CMR contamination prior to areas being tasked for clearance.¹²⁹ NPA reported that it was moving towards a multi-task approach to be able to respond to changing priorities and operational constraints.¹³⁰

NPA believes that EDDs could be beneficial in technical survey to help reduce areas containing low density ERW (including CMR) and IED contamination in north-east Lebanon, on the border with Syria.¹³¹ One of the advantages of using EDDs is that dogs detect explosives, not metal, which can help speed up the technical survey process by avoiding unnecessary excavation of the scrap-metal signals that are generated by manual detectors. In addition to NPA's technical survey with EDDs, MAG and NPA are both conducting manual technical survey.¹³²

As part of non-technical survey on the north-east border of Lebanon, contaminated during spill-over of the Syrian conflict in 2014–17, drones were used for the first time, and proved very helpful in helping inform survey efforts.¹³³

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2019

A total of nearly 3.3km² of CMR-contaminated area was released in 2019, of which nearly 1.3km² was cleared, over 0.1km² was reduced through technical survey, and nearly 1.9km² was cancelled through non-technical survey.¹³⁴

In addition, nearly 0.3km² of new CMR contamination was added to the database in 2019,¹³⁵ which was mainly discovered by shepherds in mountainous areas, resulting in rapid response tasks.¹³⁶

SURVEY IN 2019

In 2019, almost 1.90km² was cancelled through non-technical survey (see Table 4) and a further 0.12km² was reduced through technical survey (see Table 5). In addition, nearly 0.27km² was identified as being CMR-contaminated.¹³⁷

Non-technical survey output in 2019 marked a significant increase compared to 2018, when 20,314m² of newly suspected area in the Arsal region on the north-east border with Syria was cancelled through non-technical survey.¹³⁸ The increase in non-technical survey output in 2019 was the result of an increased emphasis on re-surveying CMR tasks, to help inform planning for Lebanon's 2020 Article 4 extension deadline request.¹³⁹

Of the total CMR contaminated area cancelled in 2019, 359,505m² was cancelled by MAG in the south of Lebanon and the remainder by LMAC non-technical survey teams.¹⁴⁰

Technical survey output in 2019 was broadly comparable to 2018, when 103,000m² was reduced through technical survey.¹⁴¹

NPA is using EDDs for technical survey of CMR tasks, but this requires special conditions (wind speeds, temperature, vegetation levels, etc.), and while it helps to reduce some areas where no evidence of CMR is found, output is relatively low.¹⁴² It reported days lost for technical survey due to harsh weather conditions in early 2019; the use of strong smelling pesticides on land preventing the EDD from operating effectively; and an injury to one of the dogs for an extended period in 2019. In 2019, NPA only deployed EDD for technical survey in south Lebanon, but it planned to expand their use to the north-east in 2020.¹⁴³

Table 4: Cancellation through non-technical survey in 2019¹⁴⁴

Province	Area cancelled (m ²)
Bekaa	880,154
Mount Lebanon	210,062
North	0
South of Lebanon	807,020
Total	1,897,236

Table 5: Reduction through technical survey in 2019¹⁴⁵

Operator	Area cleared (m ²)	Area reduced (m ²)
MAG	55,260	53,700
NPA	16,900	30,100
POD	7,710	35,290
Totals	79,870*	119,090

* Included in clearance table data.

CLEARANCE IN 2019

Lebanon reported clearing more than 1.26km² of CMR-contaminated land in 2019, destroying in the process 4,037 submunitions (see Tables 6 and 7).¹⁴⁶ This includes 289 submunitions destroyed during rapid response/EOD spot tasks.¹⁴⁷ Clearance during the year was a modest increase over the 1.15km² of CMR-contaminated land cleared in 2018.¹⁴⁸ Clearance rates are influenced by the type of terrain and the depth of CMR, which in some locations is deeper than 15cm.¹⁴⁹ Additionally, there were 31 less working days in 2019, compared to 2018, because of the internal unrest.¹⁵⁰

According to LMAC, all cluster munition-contaminated areas cleared in 2019 were found to have CMR.¹⁵¹ MAG reported that it cleared one cluster munition-contaminated area task in the South and 11 in north-east Lebanon, in which no submunitions were found.¹⁵² LMAC clarified that all CMR tasks in the north-east are located where CMR had been destroyed by the LAF. In the south, CMR clearance tasks are also located where CMR have been found previously, including through LAF rapid response.¹⁵³

Table 6: CMR clearance by region in 2019¹⁵⁴

Province	Area cleared (m ²)	Submunitions destroyed*
Bekaa	517,264	
Mount Lebanon	50,535	
South of Lebanon	693,233	
Totals	1,261,032	4,037

* Figures include items destroyed during technical survey.

Table 7: CMR clearance in 2019 by implementing agency¹⁵⁵

Operator	Area cleared (m ²)	Submunitions destroyed*
DCA	98,721	1,515
LAF	11,160	159
LAMINDA	99,792	287
MAG	630,271	254
NPA	161,095	1,135
POD	259,993	687
Totals	1,261,032	4,037

* Figures include items destroyed during technical survey.

Tables 6 and 7 include the destruction of 1 submunition by NPA and 129 by POD during spot tasks in 2019, and 159 submunitions destroyed by the LAF in rapid-response missions.¹⁵⁶

NPA reported a decrease in clearance, compared to 2019, due to the increased difficulty of tasks (thick vegetation, steep and rocky terrain, and high metal content), as well as 20 operational days lost (compared to 2018) due to poor weather and protests, including the blocking of roads to hospitals.¹⁵⁷

ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM, Lebanon is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 May 2021. Lebanon will not meet this deadline and submitted a request for a five-year extension for consideration at the Second CCM Review Conference in November 2020.

Originally, clearance of CMR-contaminated land had been expected to be completed by the end of 2016, in accordance with the 2011–20 national strategy.¹⁵⁸ However, meeting this target was contingent on securing the number of BAC teams needed, which did not happen, and progress against the strategy fell well behind schedule.¹⁵⁹ Progress was also hindered by the historical lack of non-technical survey and technical survey, which often resulted in inefficient land release and unnecessary clearance of uncontaminated land.

LMAC aims to complete clearance by the end of 2025, in line with objective 4 of Lebanon's Mine Action Strategy 2020–25.¹⁶⁰ This is, however, contingent on LMAC securing the same level of international funding it has received over the last three years and on the government of Lebanon contributing the envisaged US\$3 million of annual national clearance funding for the first three years of the extension period. The extension request also assumes that there will be no additional contamination; that the political and security situation in Lebanon will remain stable; and that operations will not be affected by that or other factors.¹⁶¹

Lebanon has cleared approximately 7.41km² of cluster munition-contaminated area in the last five years (see Table 8). In its 2020 Article 4 extension request, Lebanon is using the same average clearance rates as in previous three years, despite the fact that new methodologies should increase this average. This is intended to compensate for the difficult terrain in many of the remaining area, which will slow down the rate of clearance.¹⁶²

Table 8: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2019	1.26
2018	1.15
2017	1.41
2016	*1.90
2015	1.69
Total	7.41

* In addition, a further 99,641m² of re-clearance was conducted.

There is a concern that funding in some cases risks being diverted from BAC towards other objectives, such as mine clearance on the Blue Line, or clearance in the north-eastern border with Syria.¹⁶³ Furthermore, LMAC reported that donors mostly look to fund clearance of high-impact sites, whereas many of the remaining CMR tasks are viewed as moderate or low impact. LMAC is, however, encouraging donors to maintain funding to help it complete CMR clearance and its CCM Article 4 obligations.¹⁶⁴ With national capacity (LAF teams) only, LMAC calculated that it would take until 2048 to reach Article 4 completion.¹⁶⁵

A significant challenge in Lebanon's Article 4 implementation, is posed by "difficult terrain" such as deep and very steep canyons and cliffs where survey and clearance are almost impossible to conduct using current methods and assets and represent additional risk to searchers and MediEvac. LMAC recognises that suspected or confirmed cluster munition-contaminated areas on difficult terrain need to be released in order to comply with its Article 4 obligations.¹⁶⁶

According to LMAC, there are two types of scenarios related to the challenge of difficult areas, which may require different approaches from an Article 4 compliance perspective:

i) CHAs in which all known CMR contamination has already been cleared, but where part of the normal 50 metre fade-out falls within an area of difficult terrain; and ii) CHAs or SHAs located within difficult terrain, given the footprint of known cluster munition strikes.

In relation to the first scenario, LMAC considers that in cases where its quality management procedures can determine, with confidence, that all evidence of CMR contamination has been identified and removed, then the deployment of additional clearance assets into inaccessible areas where no evidence of contamination exists may be unnecessary. Regarding the second scenario, where the footprint of the cluster munition strike covers part of a difficult terrain, this is registered in the database as CHA and requires clearance.¹⁶⁷ LMAC plans to undertake a study, in partnership with GICHD, to find a solution on how to address this terrain and satisfy the requirements of the CCM.¹⁶⁸

The COVID-19 pandemic impacted the whole of Lebanon's mine action programme and all operations were suspended from 12 March for more than two months. After the relaxation of general mobilisation measures by the government of Lebanon, a TWG meeting was held and the phases for restarting operations and necessary safety measures relating to COVID-19 were developed and adopted. Operations resumed in early May 2020, under the new guidelines and safety measures, and as at July 2020 NGO clearance operators were fully operational.¹⁶⁹

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

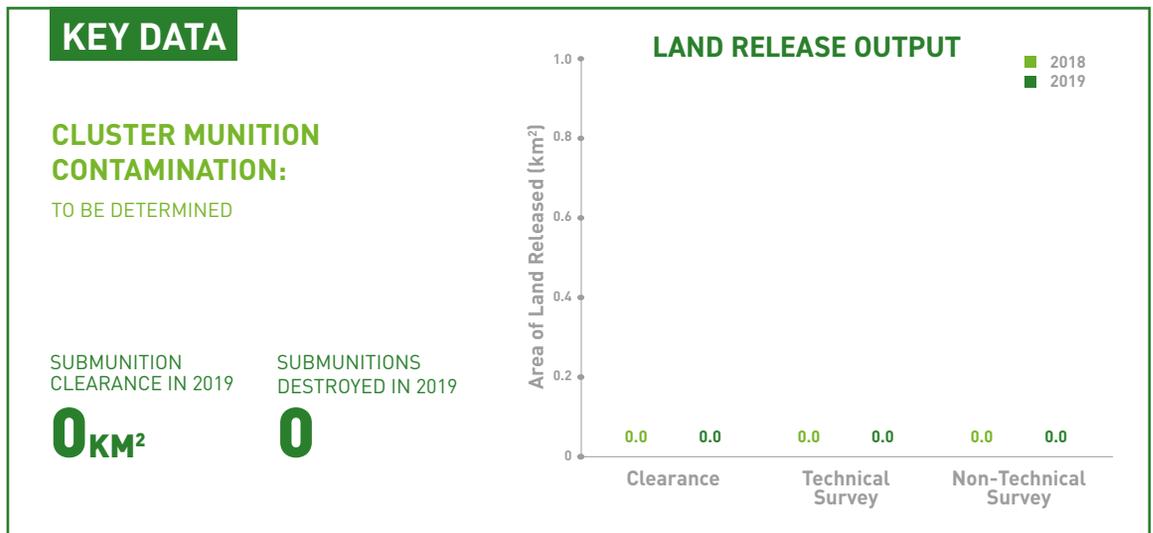
According to LMAC, a tolerable level of residual risk will remain, as areas not previously identified as containing CMR may be found in the future. LMAC appreciates the importance of the need to start the process to build a sustainable national mine action capacity that can deal with the residual contamination post Article 4 compliance. According to LMAC, the strategic implementation plan which will support the new National Mine Action Strategy 2020–25, will address an exit strategy and long-term risk management and capacity.¹⁷⁰

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- 1 Article 7 Report (covering 2019), Form F; and email from Lt.-Col. Fadi Wazen, Operations Section Head, LMAC, 19 March 2020.
 - 2 Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; and Article 7 Report (covering 2018), Form F.
 - 3 Article 7 Report (covering 2019), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
 - 4 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 9 and 10.
 - 5 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 9.
 - 6 Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; LMAC, "2018 Annual Report Lebanon Mine Action Centre", p. 13; Article 7 Report (covering 2018), Form F; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 10.
 - 7 Email from Valerie Warrington, Programme Manager, Norwegian People's Aid (NPA), 28 May 2020.
 - 8 Email from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020.
 - 9 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 12.
 - 10 Human Rights Watch, "Flooding South Lebanon. Israel's use of cluster munitions in Lebanon in July and August 2006", 16 February 2008.
 - 11 Emails from Brig.-Gen. Ziad Nasr, (then) Director, LMAC, 27 April 2018; and Lt.-Col. Fadi Wazen, LMAC, 31 May 2019; and "Mine Action Forum: Action Points 1st Quarter Progress Report", circulated by Ariane Elmas, UNDP Mine Action Advisor for LMAC, 21 March 2018.
 - 12 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 5.
 - 13 Email from Lt.-Col. Fadi Wazen, LMAC, 31 May 2019.
 - 14 MAG, "Cluster Munition Contamination in Lebanon using survey data", September 2014.
 - 15 Email from Bekim Shala, MAG, 14 June 2016.
 - 16 Email from Brig.-Gen. Elie Nassif, LMAC, 17 June 2015.
 - 17 Emails from Maj. Fadi Wazen, LMAC, 31 May 2019; and Sylvain Lefort, MAG, 3 April 2020.
 - 18 Interviews with Oussama Merhi, UNDP, in Geneva, 26 June 2015; and with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016; and emails from Brig.-Gen. Elie Nassif, LMAC, 14 May 2016; LMAC Operations Department, 3 July 2018; and Dave Wiley, MAG, 14 June 2018 and 7 March 2019.
 - 19 Landmine Action, "Foreseeable Harm: the use and impact of cluster munitions in Lebanon: 2006", 2006.
 - 20 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; and Article 7 Report (covering 2019), Form F.
 - 21 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016; presentation by Brig.-Gen. Fakhri, LMAC, Beirut, 16 November 2016; and Article 7 Report (covering 2019), Form F.
 - 22 Landmine Action, "Foreseeable Harm: the use and impact of cluster munitions in Lebanon: 2006", 2006; interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016; and Article 7 Report (covering 2016) Form F.
 - 23 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 2.
 - 24 Ibid, p. 23.
 - 25 Interview with Oussama Merhi, UNDP, in Geneva, 26 June 2015.
 - 26 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014, pp. 4–5.
 - 27 LMAC, "Lebanon Mine Action Strategy 2011–2020", September 2011, p. 4.
 - 28 Email from Lt.-Col. Fadi Wazen, LMAC, 21 August 2019.

- 29 LMAC, Lebanon Mine Action Strategy 2020–25, signed June 2020, p. 4.
- 30 Email from Brig.-Gen. Ziad Nasr, Director, LMAC, 26 March 2019.
- 31 Email from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020.
- 32 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 33 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 6.
- 34 LMAC, "2018 Annual Report Lebanon Mine Action Centre", p. 36; interview with Brig.-Gen. Jihad Bechelany, LMAC Director, Lt.-Col. Fadi Wazen, LMAC, and Ariane Elmas, Mine Action Advisor, UNDP, Beirut, 16 April 2019; and email from Emile Ollivier, NPA, 19 March 2019.
- 35 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 36 Email from GICHD, 22 July 2020.
- 37 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 38 LMAC, "Annual Report 2019", p. 7.
- 39 LMAC, "2018 Annual Report Lebanon Mine Action Centre", p. 23.
- 40 LMAC, "2018 Annual Report Lebanon Mine Action Centre", p. 23; Statement of Lebanon on International Cooperation and Assistance, CCM Ninth Meeting of States Parties, Geneva, 4 September 2019; and LMAC, Lebanon Mine Action Strategy 2020–25, Foreword by the chair of the LMAA (Minister of Defence).
- 41 LMAC, "5th Mine Action Forum", 24 January 2020, LMAC website.
- 42 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 39; and email from Valerie Warmington, NPA, 28 May 2020.
- 43 Emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019 and 19 March 2020; LMAC, "Annual Report 2018", p. 23; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 38 and 39.
- 44 Emails from Emile Ollivier, NPA, 19 March 2019; David Willey, MAG, 7 March 2019; Mahmoud Rahhal, POD, 8 March 2019; and David Ligneau, Mine Action Programme Manager, HI, 21 April 2020.
- 45 Emails from Emile Ollivier, NPA, 19 March 2019; and David Willey, MAG, 7 March 2019.
- 46 LMAC, "2018 Annual Report Lebanon Mine Action Centre", pp. 4, 7, and 17; and emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; and Emile Ollivier, NPA, 19 March 2019; and Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 8 and 54.
- 47 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; LMAC, "Annual Report 2019", p. 7; Article 7 Report (covering 2019), Form I; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 38.
- 48 Emails from Lt.-Col. Fadi Wazen, LMAC, 31 May and 7 June 2019; and interview, Beirut, 16 April 2019.
- 49 Article 7 Report (covering 2019), Form I; and email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 50 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 38; and 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020.
- 51 LMAC, "Lebanon Mine Action Strategy. Second Milestone Review 2014–2016", March 2018.
- 52 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; CCM Article 7 Report (covering 2018), Form A; and Statement of Lebanon on International Cooperation and Assistance, CCM Seventh Meeting of States Parties, Geneva, 4–6 September 2017.
- 53 Article 7 Report (covering 2019), Form A.
- 54 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 55 LMAC, "Annual Report 2018", p. 5; and email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019.
- 56 Email from Rana Elias, Cooperation Programmes Coordinator, GICHD, 26 August 2020.
- 57 Email from Lt.-Col. Fadi Wazen, LMAC, 21 August 2019.
- 58 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March and 22 July 2020.
- 59 LMAC, Lebanon Mine Action Strategy 2020–25.
- 60 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 61 Ibid.
- 62 Ibid.
- 63 Email from Ret. Brig. General Badwi El Sakkal, President, LAMINDA, 18 March 2020.
- 64 Emails from Emile Ollivier, NPA, 19 March 2019; David Willey, MAG, 7 March 2019; and Mahmoud Rahhal, POD, 8 March 2019.
- 65 Emails from David Willey, MAG, 7 March 2019; and Sylvain Lefort, Country Director, MAG, 3 April 2020.
- 66 Email from Valerie Warmington, Programme Manager, NPA, 28 May 2020.
- 67 Email from Valerie Warmington, NPA, 28 May 2020.
- 68 Email from Lt.-Col. Fadi Wazen, LMAC, 5 April 2019.
- 69 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 70 LMAC, "Annual Report 2018", p. 15; and email from Rana Elias, GICHD, 17 June 2019.
- 71 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; and interview with Maj. Ali Makki, Information Management Section Head, LMAC, and Ariane Elmas, UNDP, Beirut, 16 April 2019.
- 72 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 73 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; email from LMAC Operations Department, 28 June 2018; "Mine Action Forum: Action Points 1st Quarter Progress Report, March 2018"; and LMAC, "2018 Annual Report Lebanon Mine Action Centre", p. 14.
- 74 Emails from Rana Elias, GICHD, 17 June 2019; and Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 75 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March and 4 September 2020.
- 76 Ibid.
- 77 Email from Valerie Warmington, NPA, 28 May 2020.
- 78 Email from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020.
- 79 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 36.
- 80 Email from Lt.-Col. Fadi Wazen, LMAC, 31 May 2019.
- 81 Email from Valerie Warmington, NPA, 28 May 2020.
- 82 Email from Lt.-Col. Brig. General Badwi El Sakkal, LAMINDA, 18 March 2020.
- 83 Email from Sylvain Lefort, MAG, 3 April 2020.
- 84 LMAC, "Lebanon Mine Action Strategy 2011–2020", September 2011, p. 4.
- 85 LMAC, Lebanon Mine Action Strategy 2020–25; and LMAC, "Annual Report 2019", p. 7.
- 86 LMAC, Lebanon Mine Action Strategy 2020–25, p. 4.
- 87 Email from Lt.-Col. Fadi Wazen, LMAC, 22 July 2020; and LMAC, Lebanon Mine Action Strategy 2020–25, p. 4.
- 88 Email from Lt.-Col. Fadi Wazen, LMAC, 22 July 2020; and LMAC, "Annual Report 2019", pp. 7 and 30.
- 89 Emails from Sylvain Lefort, MAG, 3 April 2020; and Valerie Warmington, NPA, 28 May 2020.
- 90 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 5 and 34.
- 91 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 92 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 37.
- 93 Email from Dave Wiley, MAG, 19 August 2019.
- 94 LMAC, "Annual Report 2019", p. 30.
- 95 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020; and LMAC, Lebanon Mine Action Strategy 2020–25, p. 4.
- 96 Email from Brig.-Gen. Elie Nassif, LMAC, 17 June 2015.
- 97 Emails from Brig.-Gen. Elie Nassif, LMAC, 7 July 2015; Dave Wiley, MAG, 27 April 2018 and 7 March 2019; and Craig McDiarmid, Programme Manager, NPA, 17 April 2018 and 19 March 2019; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 15.
- 98 Emails from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; Sylvain Lefort, MAG, 3 April 2020; Ret. Brig. General Badwi El Sakkal, LAMINDA, 18 March 2020; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 15 and 25.
- 99 Email from Valerie Warmington, NPA, 28 May 2020.
- 100 "Mine Action Forum: Action Points 1st Quarter Progress Report, March 2018"; LMAC, "2017 Annual Report Lebanon Mine Action Centre", undated; and emails from Dave Wiley, MAG, 27 April 2018; and Craig McDiarmid, NPA, 17 April 2018; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 15 and 19.
- 101 Emails from Bekim Shala, MAG, 21 June 2016; and Craig McDiarmid, NPA, 30 March 2017.
- 102 Emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; Dave Wiley, MAG, 27 April 2018; and Craig McDiarmid, NPA, 17 April 2018; and Statement of Lebanon on Clearance, CCM Ninth Meeting of States Parties, Geneva, 2 September 2019.
- 103 Article 7 Report (covering 2019), Form F; and LMAC, "Annual Report 2019", p. 12.
- 104 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020.

- 105 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 5 and 32.
- 106 Emails from Lt.-Col. Fadi Wazen, LMAC, 5 April 2019 and 19 March 2020.
- 107 Emails from Ret. Brig. General Badwi El Sakkal, LAMINDA, 18 March 2020; and Sylvain Lefort, MAG, 3 April 2020.
- 108 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016; and with Lt.-Col. Fadi Wazen, LMAC, Beirut, 16 April 2019.
- 109 Email from Valerie Warmington, NPA, 28 May 2020.
- 110 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March and 2 September 2020.
- 111 Ibid.
- 112 Ibid.
- 113 Article 7 Report (covering 2019), Form A.
- 114 Email from Valerie Warmington, NPA, 28 May 2020.
- 115 Ibid.
- 116 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 117 LMAC, "Annual Report 2019", p. 11.
- 118 Ibid.; email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and Article 7 Report (covering 2019), Form I.
- 119 LMAC, "Annual Report 2019", p. 13.
- 120 Ibid., p. 11; and email from Brig.-Gen. (ret.) Badwi El Sakkal, LAMINDA, 18 March 2020.
- 121 Emails from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017; Samuel Devaux, HI, 4 April 2017; Dave Willey, MAG, 25 April 2017; and Lt.-Col. Fadi Wazen, LMAC, 5 April 2019.
- 122 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March and 2 September 2020; and Ret. Brig. General Badwi El Sakkal, LAMINDA, 18 March 2020. MAG reported deploying three machines in 2019, lower than the 9 machines reported by LMAC. Email from Sylvain Lefort, MAG, 3 April 2020. According to the LMAC, "Annual Report 2019", p. 10, in 2019, there were 27 NGO BAC teams: DCA (3 teams), MAG (12 teams), NPA (5 teams), POD (4 teams), and LAMINDA (3 teams).
- 123 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 11.
- 124 LMAC, "Annual Report 2019", p. 12.
- 125 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and Sylvain Lefort, MAG, 23 June 2020.
- 126 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and Valerie Warmington, NPA, 28 May 2020.
- 127 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and Sylvain Lefort, MAG, 23 June 2020.
- 128 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and Valerie Warmington, NPA, 28 May 2020.
- 129 Email from Emile Ollivier, NPA, 19 March 2019.
- 130 Email from Valerie Warmington, NPA, 28 May 2020.
- 131 Ibid.
- 132 Emails from David Willey, MAG, 7 March 2019; and Emile Ollivier, NPA, 19 March 2019.
- 133 Presentation by Lt.-Col. Fadi Wazen, LMAC, at the RHDSL, Beirut, 8 April 2019.
- 134 Article 7 Report (covering 2019), Form F; email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and LMAC, "Annual Report 2019", p. 12.
- 135 Article 7 Report (covering 2019), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 136 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 137 Article 7 Report (covering 2019), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 138 Emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; and David Willey, MAG, 7 March 2019; and Article 7 Report (covering 2018), Form F.
- 139 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 140 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and Sylvain Lefort, MAG, 3 April 2020. MAG reported to have cancelled a total of 589,299m² in 2019 (566,074m² in South Lebanon and 23,225m² in Mount Lebanon).
- 141 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March and 2 September 2020; and LMAC, "Annual Report 2019", p. 12. LMAC clarified that land reduced through technical survey in 2019 was accidentally omitted in Lebanon's Article 7 Report (covering 2019), Form F.
- 142 Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; Email from David Willey, MAG, 7 March 2019; and Article 7 Report (covering 2018), Form F.
- 143 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 144 Email from Valerie Warmington, NPA, 28 May 2020.
- 145 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and Valerie Warmington, NPA, 28 August 2020. MAG reported reducing 26,849m² through technical survey in 2019: 7,000m² in Houla, South Lebanon; 14,349m² in Jezzine, South Lebanon; and Maidoun in West Bekaa. Email from Sylvain Lefort, MAG, 3 April 2020. LMAC reported that its statistics come from the daily, weekly, and monthly reporting of all implementing partners, with whom it also performs a weekly, monthly, quarterly, and yearly check before producing the annual report.
- 146 Article 7 Report (covering 2019), Form F; and LMAC, "Annual Report 2019", pp. 10 and 11.
- 147 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 148 Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; LMAC, "2018 Annual Report Lebanon Mine Action Centre", pp. 10-11; and Article 7 Report (covering 2018), Form F.
- 149 Email from Lt.-Col. Fadi Wazen, LMAC, 31 May 2019.
- 150 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020.
- 151 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 152 Email from Sylvain Lefort, MAG, 3 April 2020.
- 153 Email from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020.
- 154 Article 7 Report (covering 2019), Form F; and LMAC, "Annual Report 2019", pp. 10 and 11.
- 155 Ibid. LAMINDA reported clearing 142,563m². Email from Ret. Brig. General Badwi El Sakkal, President, LAMINDA, 18 March 2020. MAG reported clearing 588,526m² in 2019 (81,258m² in South Lebanon; 337,438m² in West Bekaa; 14,479m² in Mount Lebanon; and 155,351m² in North (Rass Baalback). Email from Sylvain Lefort, MAG, 3 April 2020. NPA reported clearing 165,925m² in 2019 (113,510m² in Nabatiya; 50,240m² in El Jenoub; 2,175m² in Baalbek-Hermel) and destroying a total of 1,146 submunitions. The difference between LMAC's clearance data for NPA and NPA's own clearance data, is in part explained by a 2,655m² of re-clearance reported by NPA, but not reported as clearance by LMAC, to avoid double counting. The small difference in the number of submunitions reported, is due to 11 submunitions marked by NPA and destroyed by LAF, which were not included in LMAC data for NPA. Emails from Valerie Warmington, NPA, 28 May and 28 August 2020.
- 156 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020. NPA reported destroyed two submunitions in EOD spot tasks in 2019. Email from Valerie Warmington, NPA, 28 May 2020.
- 157 Email from Valerie Warmington, NPA, 28 May 2020.
- 158 LMAC, "Mid-term Review to Strategy 2011-2020, Milestone 2013", August 2014.
- 159 LMAC, "Lebanon Mine Action Strategy 2011-2020", September 2011.
- 160 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 36; and LMAC, Lebanon Mine Action Strategy 2020-25, p. 4.
- 161 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 28 and 36.
- 162 Ibid., p. 5.
- 163 Expert workshop under the framework of supporting Lebanon in meeting its CCM Article 4 obligations, Beirut, 17 November 2016; and Article 7 Report (covering 2018), Form F.
- 164 Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019.
- 165 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020.
- 166 Ibid; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 40-42.
- 167 Ibid.
- 168 Ibid; and email from GICHD, 22 July 2020.
- 169 Emails from Lt.-Col. Fadi Wazen, LMAC, 22 July 2022; Sylvain Lefort, MAG, 23 June 2020; and Brig.-Gen. (ret.) Badwi El Sakkal, LAMINDA, 22 June 2020.
- 170 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; LMAC, Lebanon Mine Action Strategy 2020-25, p. 4; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 29.

ARTICLE 4 DEADLINE: 1 AUGUST 2022
UNCLEAR WHETHER ON TRACK TO MEET DEADLINE



KEY DEVELOPMENTS

Having previously declared fulfilment of its Article 4 obligations under the Convention on Cluster Munitions (CCM) in September 2013 at the Fourth Meeting of States Parties, Mauritania reported in its CCM Article 7 transparency report covering 2019 that it had discovered previously unknown cluster munition-contaminated areas under its jurisdiction or control. Once circumstances regarding the COVID-19 pandemic permit, the National Humanitarian Demining Programme for Development (Programme National de Déminage Humanitaire pour le Développement, PNDHD) plans to conduct an assessment of suspected and confirmed cluster munition-contaminated areas, along with newly reported mined areas, with the support of Norwegian People's Aid (NPA).

RECOMMENDATIONS FOR ACTION

- Mauritania should clarify whether the cluster munition-contaminated areas in question are currently under Mauritania's effective control. If so, and they are also under its jurisdiction, the authorities should proceed to undertake an assessment mission with NPA as soon as funding and restrictions regarding COVID-19 permit. If, however, the areas are under Mauritania's effective control but not under its jurisdiction, discussions need to be held as a matter of urgency with others concerned, in particular Morocco and the Saharawi Arab Democratic Republic.
- Mauritania should confirm whether the identified areas are newly discovered or if any of the areas were already recorded as contaminated but were previously thought to be not under Mauritania's jurisdiction or control.
- Mauritania should report more accurately and consistently on the extent of cluster munition remnant (CMR) contamination, including using the classification of suspected hazardous area (SHA) and confirmed hazardous area (CHA) in a manner consistent with the International Mine Action Standards (IMAS).

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- National Humanitarian Demining Programme for Development (Programme National de Déminage Humanitaire pour le Développement, PNDHD)

NATIONAL OPERATORS

- Army Engineer Corps

INTERNATIONAL OPERATORS

- None

OTHER ACTORS

- Norwegian People's Aid (NPA)

UNDERSTANDING OF CMR CONTAMINATION

Having previously declared fulfilment of its Article 4 obligations in September 2014 at the Fourth CCM Meeting of States Parties, in 2019 Mauritania reported newly discovered cluster-munition-contaminated areas.¹ These areas are reported to be located in the "Tighert 2" region of Tires-Zemmour in the north of Mauritania, which borders Western Sahara. In Form F of its latest CCM Article 7 transparency report, the locations of the areas are listed as Boudheir, Boukhzame, Dhar el kelba, Elmetlani, Lekhneigue, Lemreir, and Tamreiket. Based on the testimonies of local people, the authorities have estimated that contamination covers a total area of 36km². According to Mauritania, submunitions are visible on the ground and many camels have been killed, with the last discovery of submunitions occurring on 21 November 2019.² It is unclear how the size of the contaminated areas have been determined.

In Annex 1 of its Article 7 report, Mauritania also lists Oudyatte Bouzeyanne and Oudyatte Lekhyame as cluster-munition-contaminated locations (in addition to those mentioned in Form F), declaring that the size of the area for each site is unknown.³ The map in Annex 1 of the Article 7 report appears to show a huge polygon within which are all of the suspected or confirmed hazardous areas. Therefore, CMR contamination, if confirmed, is likely to cover an area significantly less than 36km².⁴

Prior to reporting discovery of new contamination in 2019, Mauritania had previously declared the completion of CMR clearance in 2013.⁵ Contamination resulted from use of MK118, BLU-63, and M42 cluster munitions during the 1975–78 conflict over Western Sahara. Contamination was located in the northern border areas, around the village of Bir Moghreïn in the region of Tiris Zemmour.⁶ In Mauritania's first CCM Article 7 report, submitted in 2013 and covering 2012, it was reported that CMR contamination totalled 10km², covering eight areas north of the village of Bir Moghreïn in the north-east of the country.⁷ Following survey by NPA in 2013, the estimated area was revised substantially downwards.⁸

Mauritania reported that it previously cleared a total of over 1.96km² of cluster-munition-contaminated area in 2014, with the destruction of 1,246 submunitions, across nine locations: Agwachin, Aldouik, Ayadiyatt, Bir Mariam, Eweineget, Gharet El hemeid, Oudeyatt bozeyan, Oum Edhbait, and Tegher.⁹ However, based on its technical and non-technical survey, NPA revealed that after cancellation through non-technical survey of 70,000m² of area suspected to contain CMR in 2012, the total area confirmed to contain CMR, and which was subject to clearance in 2013, actually totalled 2.4km². Clearance covered the same nine sites listed above.¹⁰

It is unclear whether all of the newly identified cluster-munition-contaminated areas are under Mauritania's effective control, and, if so, whether they are also under its jurisdiction. If the areas are under Mauritania's effective control but not under its jurisdiction, Mauritania will need to discuss this as a matter of urgency with others concerned, in particular Morocco and the Saharawi Arab Democratic Republic.

Mauritania has also reported discovering anti-personnel mine contamination.¹¹ Please see Mine Action Review's *Clearing the Mines 2020* report on Mauritania for more information.

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The PNDHD, which was created in 2000, coordinates mine action operations in Mauritania.¹² Since 2007, the programme has been the responsibility of the Ministry of Interior and Decentralisation, with oversight from an interministerial steering committee.¹³ The PNDHD has its headquarters in the capital, Nouakchott, and a regional mine action centre (RMAC) in Nouadhibou.

Mauritania's national budget for demining and related activities in 2019 was MRU 3 million (approx. US\$75,000). It is seeking an additional US\$300,000 of international assistance to conduct non-technical survey, technical survey, marking, awareness-raising campaigns, and quality management.¹⁴

GENDER AND DIVERSITY

It is not known if the PNDHD has policies in place relating to gender and diversity in its mine action programme, and gender and diversity are not referenced in Mauritania's Article 7 report.

INFORMATION MANAGEMENT AND REPORTING

The national mine action database is held at the PNDHD. As at December 2017, Mauritania had strengthened its information management capacity by providing additional training to an information management specialist and migrating to Version 6 of the Information Management System for Mine Action (IMSMA) software.¹⁵

In its Article 7 report covering 2019, Mauritania did not disaggregate cluster-munition-contaminated areas into CHAs and SHAs, in line with best practice and IMAS.

PLANNING AND TASKING

According to its latest Article 7 report under the Anti-Personnel Mine Ban Convention (APMBC), submitted in 2020, part of the international cooperation and assistance sought by Mauritania is to support its efforts to draft a new mine action strategy, to replace the existing strategy which was expiring in 2020.¹⁶

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Survey and clearance operations are conducted in accordance with the Mauritanian National Mine Action Standards (NMAM), which are said to accord with IMAS. The NMAM include standards on non-technical survey, technical survey, mine clearance, and quality control (QC). The NMAM, were adopted in 2007. They were revised with the help of the Geneva International Centre for Humanitarian Demining (GICHD) and in partnership with operators, most notably NPA in 2010, and were translated into Arabic in 2011.¹⁷ The NMAM are supposed to be reviewed once every three years.¹⁸

OPERATORS AND OPERATIONAL TOOLS

In accordance with a 2006 decree, all clearance activities were conducted by the Army Engineer Corps operating under the PNDHD. In 2011, NPA signed a memorandum of understanding with Mauritania to provide support for both mine clearance and battle area clearance (BAC) in the country. NPA subsequently worked in Mauritania both as an operator and in a capacity-building role as a technical advisor for PNDHD until the end of 2015.¹⁹

The PNDHD has requested NPA's support in 2020 to conduct an assessment mission to determine the details of mined areas discovered since its declaration of APMBC Article 5 completion in November 2018. As part of the planned mission, NPA will also investigate the newly discovered cluster-munition-contaminated areas, as well as the mined area.²⁰

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2019

Mauritania did not release any cluster munition contaminated area in 2019.

SURVEY IN 2019

Mauritania did not release any cluster-munition-contaminated area through survey in 2019.

CLEARANCE IN 2019

Mauritania did not release any cluster-munition-contaminated area through clearance in 2019. Mauritania's CCM Article 7 report includes reference to submunition(s) being discovered in November 2019, but does not specify how many were discovered and whether they were destroyed.²¹

ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM, Mauritania is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 August 2022.

Mauritania had previously reported completing clearance of CMR in 2013, almost nine years before its treaty deadline. In its declaration of Article 4 compliance, Mauritania stated that as of 9 September 2013 it had made every effort to identify all areas under its jurisdiction or control contaminated by CMR, and that as of that date it had cleared and destroyed all CMR found, in accordance with Article 4(1) of the CCM.²²

Mauritania plans to conduct an assessment mission, with the support of NPA, as soon as restrictions due to COVID-19 permit, in order to obtain additional information on the mined areas and inform its APMB Article 5 planning.²³ The assessment mission will presumably also cover investigation of CMR-contaminated areas, as envisaged by NPA.²⁴ The PNDHD requires international funding and cooperation to address contaminated areas in northern Mauritania.²⁵

Mauritania is seeking international assistance to enable it to mark the confirmed and suspected "dangerous zones", clear contaminated areas, and destroy items of unexploded ordnance found. It is looking to train and capacity build PNDHD staff; renew office equipment (IT, furniture); renew marking and demining equipment; and carry out awareness campaigns, marking operations, demining and demolition, as part of a five-year plan.²⁶

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

Mauritania has reported under the APMB that it "will remain committed to dealing with any residual contamination" for mines,²⁷ but no details have been provided on its plans to establish a long-term sustainable national capacity to address either previously unknown mined areas or CMR-contaminated areas, following completion.

Previously, PNDHD had reported that one of the main aims of Mauritania's work plan for 2017-20 was to establish a strategy for residual contamination.²⁸

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- 1 CCM Article 7 Report (covering 2019), Form F.
 - 2 Ibid.
 - 3 Article 7 Report (covering 2019), Annex I.
 - 4 Ibid.
 - 5 Declaration of Compliance with Art. 4(1)(a) of the CCM, submitted by Mauritania, 3 September 2014.
 - 6 Ibid.
 - 7 Article 7 Report (covering 2012), Form F.
 - 8 Article 7 Report (covering 2013), Form F; and Declaration of Compliance with Art. 4(1)(a) of the CCM, 3 September 2014.
 - 9 Article 7 Report (covering 2019), Form F.
 - 10 Email from Melissa Andersson, Country Director, NPA, 13 May 2015.
 - 11 Third Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, received June 2020.
 - 12 Decree No. 1960/MDAT/MDN establishing the PNDHD, 14 August 2007; and Third APMBC Article 5 deadline Extension Request, received June 2020, p. 2.
 - 13 Decree No. 001358/MDAT establishing the Steering Committee of the PNDHD, 3 September 2007; and Third APMBC Article 5 deadline Extension Request, received June 2020, p. 2.
 - 14 Article 7 Report (covering 2019), Form I.
 - 15 APMBC Article 7 Report (covering 2017), Form D.
 - 16 APMBC Article 7 Report (covering 2019), pp. 13–14.
 - 17 Email from Alioune O. Mohamed El Hacen, PNDHD, 17 April 2011; and Third APMBC Article 5 deadline Extension Request, received June 2020, pp. 5 and 8.
 - 18 Third APMBC Article 5 deadline Extension Request, received June 2020, pp. 5 and 8.
 - 19 Emails from Aliouneould Menane, PNDHD, 1 September 2016; and Melissa Andersson, NPA, 12 September 2016 and 13 March 2017.
 - 20 Email from Melissa Andersson, NPA, 20 May 2020.
 - 21 Ibid.
 - 22 Declaration of Compliance with Art. 4(1)(a) of the CCM, submitted by Mauritania, 3 September 2014.
 - 23 Third APMBC Article 5 deadline Extension Request, received June 2020, pp. 1 and 10; and APMBC Article 7 Report (covering 2019), p. 9.
 - 24 Email from Melissa Andersson, NPA, 4 August 2020.
 - 25 Third APMBC Article 5 deadline Extension Request, received June 2020, p. 10; and CCM Article 7 Report (covering 2019), Form I.
 - 26 CCM Article 7 Report (covering 2019), Form F.
 - 27 Third APMBC Article 5 deadline Extension Request, received June 2020, p. 3.
 - 28 Email from Aliouneould Menane, PNDHD, 23 July 2018.

MONTENEGRO



CLEARING CLUSTER MUNITION REMNANTS 2020

ARTICLE 4 DEADLINE: 1 AUGUST 2020 REPORTED FULFILMENT OF ARTICLE 4 OBLIGATIONS

KEY DATA

CLUSTER MUNITION CONTAMINATION: MEDIUM

COMPLETED CLEARANCE OF ALL
KNOWN CMR-CONTAMINATED AREAS

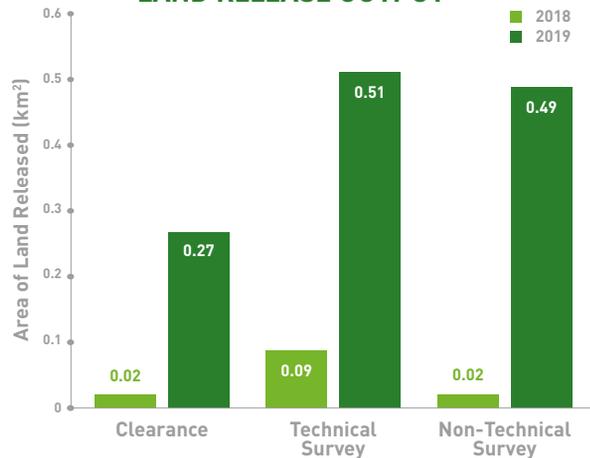
SUBMUNITION
CLEARANCE IN 2019

0.27 km²

SUBMUNITIONS
DESTROYED IN 2019

64

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Montenegro has fulfilled its Convention on Cluster Munitions (CCM) Article 4 obligations, having completed clearance of remaining cluster munition remnant (CMR) contamination on 20 July 2020, and Montenegro declared it had fulfilled its Article 4 obligation as at 21 July, ahead of its 1 August deadline. Completion was facilitated by the creation of a "Country Coalition", in which Norway, as the lead support State/donor, partnered with Montenegro, with Norwegian People's Aid (NPA) as the implementing partner. This Coalition enabled effective planning and completion of CMR clearance by Montenegro's Article 4 deadline.

Land release operations re-started in October 2018, implemented, with the support of NPA, by the Department for UXO [Unexploded Ordnance] within the Directorate for Emergency Situations. Operations had been scheduled to be completed by the end of April 2020, but this was delayed by two and a half months due to the impact of the COVID-19 pandemic on operations.

RECOMMENDATIONS FOR ACTION

- Montenegro should ensure sustainable national capacity is in place to address any CMR discovered since its Article 4 fulfilment, both in terms of its information management database and its survey and clearance capacity.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2019)	Score (2018)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	9	7	Montenegro completed clearance of all known CMR contamination in July 2020. This was achieved following re-commencement of land release operations in October 2018, following earlier non-technical survey in 2012-13.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	8	6	The Country Coalition, formed in 2018 between Montenegro, Norway (as the lead support State/donor), and NPA as the implementing partner, provided an excellent forum in which to effectively plan for completion of clearance by Montenegro's 1 August 2020 Article 4 deadline. The Directorate for Emergency Situations, within the Ministry of Interior, was responsible for overseeing CMR survey and clearance, and provided an enabling environment with strong national ownership. While national resources (both technical and financial) were relatively limited, Montenegro did provide funding for its UXO team and for quality management of CMR operations.
GENDER AND DIVERSITY (10% of overall score)	7	7	The capacity of the national mine action programme in Montenegro was small, but there was a gender policy in place. NPA's survey and clearance personnel were seconded from its programme in Bosnia and Herzegovina and while all NPA operations staff deployed in Montenegro were male, NPA's Programme Manager was a woman and there was one additional female member of staff. Women and children are consulted during survey activities, and data are disaggregated by sex and age.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	6	5	There is no national information management system in place, such as the Information Management System for Mine Action (IMSMA). While Montenegro did report disaggregated CMR contamination data and land release data to Mine Action Review, in its CCM Article 7 transparency report it did not disaggregate CMR contamination data into suspected hazardous area (SHA) and confirmed hazardous area (CHA) or disaggregate land reduced through technical survey from land released through clearance.
PLANNING AND TASKING (10% of overall score)	8	8	There was no national mine strategy in place, but a joint working group was established and the Ministry of Interior and NPA elaborated a work plan to plan and prioritise CMR survey and clearance operations and achieve fulfilment of Article 4 by its deadline of 1 August 2020.
LAND RELEASE SYSTEM (20% of overall score)	8	7	While no national mine action standards exist, CMR survey and clearance operations were conducted in accordance to the International Mine Action Standards (IMAS) and to national standing operating procedures (SOPs). Evidence-based survey was used to release uncontaminated land and confirm CMR contamination prior to clearance. Explosive detection dogs (EDDs) were deployed for three months in 2019, to support manual technical survey. Survey and clearance capacity was sufficient to enable Montenegro to complete CMR clearance in July 2020, ahead of its deadline.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	9	6	Montenegro completed CMR in July 2020, ahead of its Article 4 deadline. A total of 1.27km ² of CMR contaminated area was released in 2019 through non-technical survey, technical survey, and clearance, and remaining CMR contamination was released in 2020. Montenegro has a sustainable national capacity to address any residual CMR discovered post-completion.
Average Score	8.1	6.6	Overall Programme Performance: VERY GOOD

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- The Directorate for Emergency Situations, Ministry of Interior

NATIONAL OPERATORS

- The Department for UXO (within the Directorate for Emergency Situations)

INTERNATIONAL OPERATORS

- Norwegian People's Aid (NPA)

OTHER ACTORS

- None

UNDERSTANDING OF CMR CONTAMINATION

Clearance of remaining known CMR contamination was completed on 20 July 2020 and Montenegro declared it had fulfilled its Article 4 obligation on the following day, 21 July.

At the end of 2019, contamination had totalled almost 0.5km² (two confirmed hazardous areas (CHAs) totalling 0.2km² and two suspected hazardous areas (SHAs) totalling nearly 0.3km²), in Golubovci municipality.¹ Prior to re-starting land release operations in October 2018, remaining CMR contamination had stood at almost 1.72km² across three municipalities (Golubovci, Rožaje, and Tuzi).² The contamination was identified during detailed non-technical survey conducted between December 2012 and April 2013. During the survey, NPA made 87 polygons of SHAs and CHAs across 11 locations in three municipalities. Contamination was found to affect five communities.³ Due to snow, it was not possible to survey two suspected areas of CMR contamination during the 2012–13 survey, at Bogajice and Murino in Plav municipality.⁴

Having secured new funding from Norway, CMR land release operations re-started in late 2018 and hazardous areas were re-surveyed through non-technical survey, prior to tasking of technical survey and clearance.⁵ As part of the non-technical survey, the two sites in Plav municipality, inaccessible during the earlier non-technical survey because of snow, were cancelled.⁶

Montenegro became contaminated with CMR in 1999 during the North Atlantic Treaty Organization (NATO) bombing of Yugoslavia as part of the war over Kosovo. NATO air strikes in Montenegro between March and June 1999 included use of 22 cluster munitions of four different types: AGM-154A JSOW guided missiles, BL755s, CBU-87/Bs, and MK-20 Rockeye IIs. These scattered a total of some 4,000 submunitions (BLU-97A/B, BL755, MK-1, and MK118).⁷ In addition, there was CMR contamination in Rožaje, which was the result of the dumping of cluster munitions by the Yugoslav army.⁸

Some unexploded submunitions were collected by Yugoslav army units immediately after the NATO air strikes. This initial clearance was carried out in haste, without applying international standards for explosive remnants of war (ERW) clearance, and for the most part only visible submunitions were destroyed.⁹ Following Montenegro's independence, CMR removal was conducted by the Ministry of Interior in response to notifications from the public.¹⁰

CMR clearance according to international standards was only carried out in one of the three affected municipalities in Montenegro. In 2007, UXB Balkans, a commercial operator from Bosnia and Herzegovina (BiH), conducted clearance operations in two locations within the communities of Besnik and Njeguši (in the municipality of Rožaje). In total, some 378,000m² was cleared with the destruction of 16 MK-1 submunitions.¹¹

Montenegro's initial CCM Article 7 transparency report had declared that, as at 27 January 2011, "there are no contaminated areas in Montenegro."¹² In July 2011, however, the director of the Regional Centre for Divers' Training and Underwater Demining (RCUD) confirmed that unexploded submunitions had been found in 2007.¹³ Montenegro informed a CCM intersessional meeting in 2012 that clearance by military units after the air strikes in 1999, during which more than 1,800 submunitions were collected, had not been conducted "fully according to humanitarian mine action standards" and that it planned to conduct a survey to assess the remaining threat.¹⁴ This led to the 2012–13 NPA survey described above.¹⁵

OTHER EXPLOSIVE REMNANTS OF WAR

Montenegro is also heavily contaminated with multiple types of ERW from the First and Second World Wars, with items of UXO discovered daily throughout the country, on land as well as in rivers and the sea.¹⁶

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Directorate for Emergency Situations, established in 2006 by the Ministry of Interior, is responsible for mine action in Montenegro, performing the role of a national mine action centre.¹⁷ Prior to 2017, due to lack of human resources and equipment, the role of the national mine action centre had previously been undertaken by RCUD, which was set up in 2002.¹⁸

In December 2017, NPA organised a workshop in cooperation with the Ministry of Interior of Montenegro's Directorate for Emergency Situations, on the "Application of standard operating procedures for technical survey and clearance of areas contaminated with cluster munition remnants with special emphasis on internal and external quality control". The aim of the workshop was to familiarise Directorate staff with standing operating procedures (SOPs) relating to technical survey and clearance of CMR and to train them on how to undertake quality control (QC) of those operations. The five participants from the Directorate successfully completed the training.¹⁹ The Directorate is responsible for external quality monitoring and issuing of QC certificates in operations on CMR-contaminated area.²⁰ In addition, in 2018, personnel from the Directorate were trained by NPA in non-technical survey.²¹

A Memorandum of Understanding (MoU) was signed in July 2018 between the Ministry of Interior and NPA for a Norwegian funded project to complete CMR clearance. The partnership took the form of a Country Coalition, a concept launched under Germany's presidency of the Seventh Meeting of States Parties in 2017. Norway, as the lead support State/donor, partnered with the Montenegrin national authority, with NPA as the implementing partner. The aim of the Country Coalition was to achieve fulfilment of Montenegro's Article 4 clearance obligations by its August 2020 deadline, and cooperation and collaboration between the Directorate for Emergency Situations, its UXO Department, and NPA were both effective and professional.

The approach included establishment of a joint working group to support the planning and prioritisation of CMR tasks; a clear division of roles and responsibilities; transparent discussions and sense of common ownership; and an enabling environment for mine action.²² NPA provided capacity development support to national authorities regarding refresher training on destruction of BLU-97 and MK118 Rockeye submunitions, and the development of new SOPs for both non-technical and technical survey.²³

All activities performed by the Ministry of Interior team, including destruction of submunitions and external QC, were nationally funded.²⁴

GENDER AND DIVERSITY

National authorities in Montenegro reported that a gender policy is in place, and that procedures for conducting non-technical survey include ensuring a gender-balanced approach to survey teams and consulting with all members of the community, including women and children.²⁵

There is equal access to employment for qualified women and men in survey and clearance teams in Montenegro, and women account for 20% of operational roles, and 30% of managerial level/supervisory positions.²⁶

Implementing partner NPA has a gender equality policy in place and provided coaching and support for key staff on the policy in 2019. While NPA's Programme Manager and Administration Officer in Montenegro were both women, its survey and clearance team were seconded from NPA's programme in BiH and were all men.²⁷

Relevant data was disaggregated data by sex and age by both the Ministry of Interior and NPA.²⁸

INFORMATION MANAGEMENT AND REPORTING

There is no national information management system in place, such as the information management system for mine action (IMSMA). NPA is supporting the Department for UXO within the Directorate for Emergency Situations in providing all data from the CMR programme to the Ministry of Interior, upon completion.²⁹

Although Montenegro submitted its Article 7 transparency report (covering 2019) in a timely manner, the quality and accuracy of information on CMR contamination, as well as on survey and clearance outputs, could be improved. In its Article 7 report, the total area of remaining CMR contamination was not separated into SHAs and CHAs, and land reduced through technical survey in 2019 was not disaggregated from release through clearance, even though this data was available and was reported to Mine Action Review.³⁰

PLANNING AND TASKING

RCUD and NPA signed an MoU in December 2012 under which NPA agreed to fund and implement a two-phase project – the “Cluster Munition Convention Completion Initiative for Montenegro”. This involved first, non-technical survey, and then, technical survey and clearance of areas where the presence of CMR was confirmed. NPA agreed to set up a database and to develop capacity for non-technical survey and quality management.³¹ The non-technical survey was completed but funding for the second phase of the project involving technical survey and clearance, originally expected to start in 2013 and continue throughout 2014,³² was not secured.

In May 2018, in a welcome development, Norwegian government funding was secured for the CMR survey and clearance operations necessary for Montenegro to release remaining CMR-contaminated areas and fulfil its CCM Article 4 obligations. An MoU between the Ministry of Interior and NPA was signed in July with CMR land release operations beginning in October 2018. There was a work plan in place aimed at completion of Montenegro's Article 4 clearance obligations by its 1 August 2020 deadline, and plans for realisation of the CMR completion project were entered into the medium-term work plan of the Montenegro government.³³

Following the signature of the MoU, a joint working group was established to support the planning, prioritisation, and collaboration for CMR tasks.³⁴ Criteria for prioritising CMR-contaminated areas for clearance were agreed between the national authorities and NPA,³⁵ designed to enable access based on national priorities, including aviation needs, geographic locations and linkages, and weather conditions.³⁶

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

In March 2018, the Directorate for Emergency Situations reported that it had prepared a rule book on the destruction of UXO and was currently working on drafting national mine action legislation.³⁷ In February 2019, it reported that mine action legislation was in place.³⁸

No national standards exist for survey and clearance of CMR in Montenegro, but operations were conducted according to the International Mine Action Standards (IMAS) and to national SOPs developed for non-technical survey, technical survey, clearance, and use of explosives detection dogs (EDDs).³⁹ Aviation security procedures require that SOPs for CMR survey and clearance operations at Podgorica airport be adapted to meet specific international standards.⁴⁰

OPERATORS AND OPERATIONAL TOOLS

The Department for UXO within the Directorate for Emergency Situations has only five staff, who are primarily dedicated to clearance of UXO other than submunitions, which comprises the bulk of ERW contamination in Montenegro.⁴¹ Due to lack of funding, responsibility for explosive ordnance disposal (EOD) has remained with the police.⁴²

Having previously completed a nationwide non-technical survey in April 2013, NPA, re-started CMR land release operations in October 2018, thanks to Norwegian government funding.⁴³

Non-technical survey capacity in 2019 totalled four personnel, comprising one NPA staff,⁴⁴ working with three trained personnel from the Ministry of Interior.⁴⁵ NPA technical survey/clearance capacity in 2019 comprised six deminers. Two EDDs and two dog handlers, supported by a team leader, were also deployed by NPA for three months, working alongside the manual team for technical survey.⁴⁶

In late February 2019, Ministry of Interior/NPA received a thermal camera drone for six months, to assist with non-technical survey.⁴⁷ The Ministry of Interior worked with NPA to support thermal drone testing in Montenegro, which was conducted in July and December 2019. In addition, representatives from Montenegro also participated in a global thermal drone workshop held by NPA at the Ministry of Interior in Podgorica, in October 2019.⁴⁸

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2019

A total of 1.27km² of CMR contaminated area was released in 2019, of which almost 0.27m² was cleared, over 0.51m² was reduced through technical survey, and almost 0.49m² was cancelled through non-technical survey.⁴⁹

SURVEY IN 2019

A total of more than 1km² of CMR-contaminated area was released through survey in 2019, all in the municipality of Golubovci. Of this, nearly 0.49km² was cancelled through non-technical survey by the joint Ministry of Interior/NPA team and over 0.51km² was reduced through technical survey.⁵⁰

While Montenegro did report disaggregated data to Mine Action Review, it did not disaggregate land reduced through technical survey from land released through clearance in its Article 7 report covering 2019, in which technical survey output was reported as clearance.⁵¹

Survey output in 2019 was a significant increase compared to 2018, when 15,163m² of CMR-contaminated area was cancelled and 92,190m² reduced.⁵²

During non-technical survey in 2019, one previously unrecorded area of CMR contamination, totalling 51,000m², was added to the database.⁵³

CLEARANCE IN 2019

In 2019, NPA cleared nearly 0.27km² of cluster munition-contaminated area in the municipality of Golubovci, during which 64 submunitions were found by NPA and destroyed by the Ministry of Interior. All areas cleared in 2019 contained CMR.⁵⁴

Montenegro did not disaggregate land reduced through technical survey from land released through clearance in its Article 7 report covering 2019, and so reported, incorrectly, the full 782,305m² as clearance.⁵⁵

NPA achieved 92% of clearance planned in 2019, due to challenges encountered in the clearance tasks at the airport, which included civil and military restrictions, high levels of metal contamination, soil type, and required pausing of operations due to flights.⁵⁶

Clearance in 2019 marked an increase on 2018, when 17,430m² of cluster munition-contaminated area was cleared.⁵⁷

PROGRESS IN 2020

Clearance of the all remaining known CMR contamination was completed on 20 July 2020, in the municipality of Tuzi,⁵⁸ and Montenegro declared it had fulfilled its Article 4 obligation as at the following day.⁵⁹ Between January and July 2020, the remaining 343,185m² of cluster munition-contaminated area was released (of which 92,945m² was cancelled through non-technical survey; 194,200m² was reduced through technical survey; and 56,040m² was cleared), during which 15 submunitions were destroyed.⁶⁰

ARTICLE 4 DEADLINE AND COMPLIANCE



CMR clearance was completed on 20 July 2020 and Montenegro declared it had fulfilled its obligations under Article 4 obligation of the CCM as at 21 July, ahead of its 1 August 2020 deadline.⁶¹ In its communiqué to the Implementation Support Unit of the CCM, dated 29 July 2020, Montenegro said that “the official declaration of compliance will be submitted as soon as it is finalised.”⁶²

Following completion of earlier non-technical survey in 2013, land release operations only recommenced in Montenegro in October 2018, supported by the establishment of the Country Coalition between Norway, Montenegro, and NPA. It had been expected that CMR clearance operations would be completed by 30 April 2020, but progress was impacted by the COVID-19 pandemic, which caused clearance operations to be suspended from 16 March to 1 June 2020.⁶³

Table 1: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2019	0.27
2018	0.02
2017	0
2016	0
2015	0
Total	0.29

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

According to NPA, Montenegro has a sustainable national capacity in place to address CMR discovered following Article 4 completion, with respect to information management as well as for survey and clearance.⁶⁴

- 1 Email from Milovan Joksimović, Head, Department for UXO, Directorate for Emergency Situations, Ministry of Interior, 20 March 2020.
- 2 Article 7 Reports (covering 2018 and 2019), Form F; and emails from Milovan Joksimović, Directorate for Emergency Situations, 28 March 2018 and 25 February 2019.
- 3 NPA, "Cluster Munition Remnants in Montenegro", July 2013, p. 26.
- 4 Ibid.; and interview with Milovan Joksimović, Department for UXO, Directorate for Emergency Situations, Podgorica, 15 May 2017.
- 5 Article 7 Reports (covering 2018 and 2019), Form F; and emails from Alyson Lewis, Programme Manager, NPA, 27 February 2019 and 17 March 2020.
- 6 Email from Milovan Joksimović, Head, Department for UXO, Directorate for Emergency Situations, 20 March 2020.
- 7 NPA, "Cluster Munition Remnants in Montenegro", July 2013, p. 21.
- 8 Interview with Milovan Joksimović, Directorate for Emergency Situations, Podgorica, 15 May 2017.
- 9 NPA, "Cluster Munition Remnants in Montenegro", July 2013, p. 22.
- 10 Ibid., p. 21.
- 11 Ibid., p. 23.
- 12 Article 7 Report (covering 1 August 2010 to 27 January 2011), Form F.
- 13 Telephone interviews with Veselin Mijajlovic, RCU, 19 and 25 July 2011.
- 14 Statement of Montenegro, CCM intersessional meetings (Clearance and Risk Reduction Session), Geneva, 17 April 2012.
- 15 NPA, "Cluster Munition Remnants in Montenegro", July 2013, p. 26.
- 16 Interview with Milovan Joksimović, Directorate for Emergency Situations, Podgorica, 15 May 2017.
- 17 Article 7 Report (covering 2016); and interview with Milovan Joksimović, Directorate for Emergency Situations, Podgorica, 15 May 2017.
- 18 Email from Veselin Mijajlovic, RCU, 29 July 2012; and Official Gazette, No. 66, pp. 28–32.
- 19 Email from Goran Šehić, Deputy Programme Manager, NPA Bosnia and Herzegovina, 3 July 2018.
- 20 Emails from Goran Šehić, Deputy Programme Manager, NPA Bosnia and Herzegovina, 3 July 2018 and email Milovan Joksimović, Directorate for Emergency Situations, 4 July 2018; and Statement of Montenegro on clearance, CCM Ninth Meeting of States Parties, Geneva, 3 September 2019.
- 21 Email from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019.
- 22 CCM Side event presentation by Milovan Joksimović, Directorate for Emergency Situations, 9MSP, Geneva, 4 September 2019; and email from Alyson Lewis, NPA, 27 February 2019.
- 23 Email from Alyson Lewis, NPA, 27 February 2019.
- 24 CCM Side event presentation by Milovan Joksimović, Directorate for Emergency Situations, 9MSP, Geneva, 3 September 2019; and Article 7 Report (covering 2019), Form I.
- 25 Emails from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019; and Alyson Lewis, NPA, 27 February 2019.
- 26 Email Milovan Joksimović, Directorate for Emergency Situations, 20 March 2020.
- 27 Email from Kristina Đurić, NPA, 21 August 2020.
- 28 Emails from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019, and Alyson Lewis, NPA, 27 February 2019.
- 29 Email from Alyson Lewis, NPA, 17 March 2020.
- 30 Article 7 Report (covering 2019), Form F; and email from Alyson Lewis, NPA, 17 March 2020.
- 31 NPA, "Cluster Munition Remnants in Montenegro", July 2013, p. 9.
- 32 Ibid., p. 6.
- 33 Emails from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019; and Alyson Lewis, NPA, 27 February 2019.
- 34 Email from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019.
- 35 Ibid.; and email from Alyson Lewis, NPA, 27 February 2019.
- 36 Email from Alyson Lewis, NPA, 27 February 2019.
- 37 Email from Milovan Joksimović, Directorate for Emergency Situations, 28 March 2018.
- 38 Email from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019.
- 39 Email from Alyson Lewis, NPA, 27 February 2019.
- 40 Ibid.
- 41 Emails from Milovan Joksimović, Directorate for Emergency Situations, 28 March 2018 and 20 March 2020.
- 42 Email from Milovan Joksimović, Directorate for Emergency Situations, 28 March 2018.
- 43 Email from Alyson Lewis, NPA, 27 February 2019.
- 44 Email from Alyson Lewis, NPA, 17 March 2020.
- 45 Email Milovan Joksimović, Directorate for Emergency Situations, 20 March 2020.
- 46 Ibid.; and email from Alyson Lewis, NPA, 17 March 2020.
- 47 Emails from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019; and Alyson Lewis, NPA, 27 February and 4 June 2019.
- 48 Email from Alyson Lewis, NPA, 17 March 2020.
- 49 Emails from Email Milovan Joksimović, Directorate for Emergency Situations, 20 March 2020; and Alyson Lewis, NPA, 17 March 2020; and Article 7 Report (covering 2019), Form F.
- 50 Article 7 Report (covering 2019), Form F; and emails from Milovan Joksimović, Directorate for Emergency Situations, 20 March 2020; and Alyson Lewis, NPA, 17 March 2020.
- 51 Article 7 Report (covering 2019), Form F.
- 52 Article 7 Report (covering 2018), Form F; and emails from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019; and Alyson Lewis, NPA, 27 February 2019.
- 53 Email from Milovan Joksimović, Directorate for Emergency Situations, 20 March 2020.
- 54 Ibid.; and email from Alyson Lewis, NPA, 17 March 2020.
- 55 Article 7 Report (covering 2019), Form F.
- 56 Ibid.
- 57 Email from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019. The 2018 clearance output was not included in Montenegro's CCM Article 7 report covering 2018, as national documentation was submitted after the report.
- 58 Email from Alyson Lewis, NPA, 28 July 2020.
- 59 Written communiqué by Montenegro to the CCM Implementation Support Unit, 29 July 2020.
- 60 Email from Kristina Đurić, NPA, 21 August 2020. There was a slight discrepancy in that in its Article 7 report (covering 2019), Montenegro reported that 0.5km² of CMR contamination remained as at end of 2019. However, the remaining CMR-contaminated area released in 2020 was reported to total only 0.34km². However, this is believed to be due to inconsistencies in reporting of the extent of CMR contamination and NPA was confident that all known remaining contamination had been cleared as at 20 July 2020.
- 61 Email from Jonas Zachrisson, Country Director, NPA, 23 September 2020; and written communiqué by Montenegro to the CCM Implementation Support Unit, 29 July 2020.
- 62 Written communiqué by Montenegro to the CCM Implementation Support Unit, 29 July 2020.
- 63 Emails from Milovan Joksimović, Directorate for Emergency Situations, 20 March 2020; Alyson Lewis, NPA, 17 March 2020; and Kristina Đurić, NPA, 21 August 2020.
- 64 Email from Kristina Đurić, NPA, 21 August 2020.

ARTICLE 4 DEADLINE: 1 MARCH 2026
NOT ON TRACK TO MEET DEADLINE

KEY DATA

CLUSTER MUNITION CONTAMINATION: LIGHT

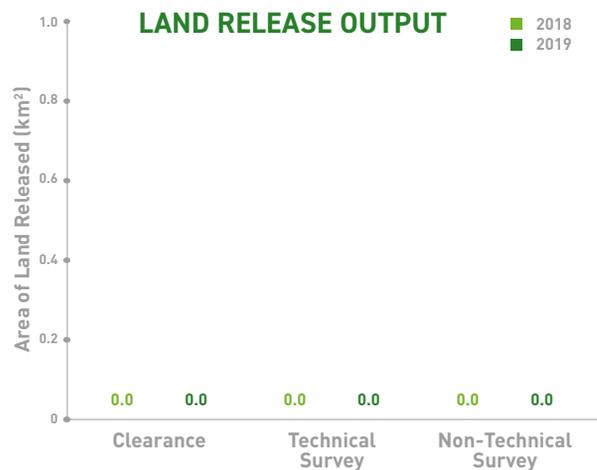
MINE ACTION REVIEW ESTIMATE
LESS THAN **5 km²**

SUBMUNITION
CLEARANCE IN 2019

0 km²

SUBMUNITIONS
DESTROYED IN 2019

0



KEY DEVELOPMENTS

In 2019, Somalia again made no progress in implementing its obligations under Article 4 of the Convention on Cluster Munitions (CCM). No overview of the extent of contamination from cluster munition remnants (CMR) exists. No survey specific to CMR was conducted and no clearance of CMR was reported again in 2019, as in previous years. A planned review of survey records in the national database by the Somali Explosive Management Authority (SEMA) was still ongoing as at August 2020.

RECOMMENDATIONS FOR ACTION

- Somalia should ensure timely survey and clearance of CMR in accordance with its CCM obligations, alongside efforts to address mines and explosive remnants of war (ERW) other than CMR.
- Somalia should elaborate a plan for Article 4 implementation, including determining a comprehensive baseline of CMR contamination.
- Somalia should commit resources to mine action operations.
- SEMA's status within the Federal Government of Somalia should be officially recognised and national resources budgeted annually for its operating costs.
- Continued efforts should be undertaken to support SEMA to manage the Information Management System for Mine Action (IMSMA) database. Regular updates from the database should be shared with all implementing partners.
- Somalia should elaborate a new National Mine Action Strategic Plan, updating the National Mine Action Strategic Plan 2018–2020 (which had still to be formally endorsed by the Federal Government as of writing).
- Somalia should develop a resource mobilisation strategy and initiate dialogue with development partners on long-term support for mine action, including to address CMR.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2019)	Score (2018)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	3	3	No baseline of CMR contamination has been established.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	4	4	A new director of SEMA was appointed in 2019 and SEMA continued to receive capacity development support. However, there is a lack of national ownership as the Federal Government of Somalia has still not formally recognised the Authority as a government institution or funded its operations.
GENDER AND DIVERSITY (10% of overall score)	5	5	Somalia's National Mine Action Strategic Plan 2018–2020 includes provisions on gender and diversity. SEMA has advocated action on gender and diversity within survey and community liaison teams. However, there are challenges to achieving gender mainstreaming within Somalia as a patriarchal society. Clan affiliation is also an important consideration when considering diversity.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	6	5	SEMA has assumed full ownership and responsibility for the national mine action database, however, it has been reported that the database is neither up to date nor accurate. Somalia submitted its initial CCM Article 7 report in October 2019. In mid-September 2020, Somalia submitted its Article 7 report covering 2019.
PLANNING AND TASKING (10% of overall score)	5	5	Somalia's National Mine Action Strategic Plan 2018–2020 was still awaiting final approval as at June 2020. SEMA met with operators in 2019, to discuss setting indicators for planning and prioritisation. Operators reported that while improvements had been made in tasking by SEMA the process would benefit from it taking greater ownership.
LAND RELEASE SYSTEM (20% of overall score)	5	5	A process to revise Somalia's National Technical Standards and Guidelines was due to be completed in 2019 but was still awaiting approval as of writing. The current standards are not deemed to meet the requirements for Somalia.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	2	2	No CMR contamination was surveyed or cleared again in 2019, and no progress towards addressing CMR contamination has been reported in the past six years. Somalia is not currently on track to meet its Article 4 deadline of 2026.
Average Score	4.0	3.9	Overall Programme Performance: POOR

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- Somali Explosive Management Authority (SEMA)
- Mine Action Department, within the Somaliland Ministry of Defence (formerly the Somaliland Mine Action Centre, SMAC)

NATIONAL OPERATORS

- Federal Member States (FMS) NGO consortium

INTERNATIONAL OPERATORS

- The HALO Trust
- Norwegian People's Aid (NPA)
- Ukroboronservice
- Danish Demining Group (DDG)

OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

UNDERSTANDING OF CMR CONTAMINATION

The extent of CMR contamination in Somalia is unknown. There were no reports of previously unrecorded CMR contamination being added to the database in 2019.¹ However, according to SEMA, CMR are suspected in areas along the border with Kenya, in the north of Jubaland state. It stated that in the old version of the national database managed by the United Nations Mine Action Service (UNMAS), five areas suspected to contain CMR contamination were recorded in Jubaland and that verification of this information was ongoing.² No further survey of CMR-contaminated areas has been possible in recent years, primarily due to lack of funding, according to SEMA.³ There is no reported CMR contamination in Somaliland.

In 2013, dozens of PTAB-2.5M submunitions and several AO-1-Sch submunitions were found within a 30km radius of the town of Dollow on the Somali-Ethiopian border in south-central Somalia.⁴ CMR were also identified around the town of Galdogob in the north-central Mudug province of Puntland, further north on the border with Ethiopia.⁵ More contamination was expected to be found in south-central Somalia's Lower and Upper Juba regions.⁶

Submunitions have been sporadically found in previous years, including most recently in 2017, when UNMAS reported that it was shown two photos of the body of a BL755 submunition being used in what it assessed to be an improvised explosive device (IED) in Kismayo, Lower Juba region.⁷ Previously, three reports of CMR were made in 2016: several BL755 submunitions were reportedly found near Bu'ale, Middle Juba region in January, which were claimed by Somali media to have been recently used; a modified BL755 submunition was found in Bardera (Baardheere), Gedo region in March; and one PTAB-2.5M submunition was reportedly found in Dinsoor, Bay region in September.⁸ In 2015, UNMAS reported that eight reports were submitted in September from Rabdhure, in Bakool region of South West state, showing empty RBK-250-275 cluster bomb containers, which can contain both AO-1-Sch and PTAB-2.5M submunitions.⁹

The Ethiopian National Defence Forces and the Somali National Armed Forces are thought to have used cluster munitions in clashes along the Somali-Ethiopian border during the 1977–78 Ogaden War.¹⁰ The Soviet Union supplied both Ethiopia and Somalia with weapons during the conflict. PTAB-2.5 and AO-1-Sch submunitions were produced by the Soviet Union on a large scale.¹¹

In January 2016, Somali media reports alleged that the Kenyan Defence Forces (KDF) had used cluster munitions during an intensive bombing campaign in Gedo region, in response to an attack on KDF forces at an African Union Mission in Somalia (AMISOM) base in El Adde in which 150 Kenyan soldiers were reportedly killed.¹² Photos appeared to show that the KDF used United Kingdom (UK)-manufactured BL755 submunitions in the area of Bu'ale, and subsequently it was reported that al-Shabaab had discovered unexploded submunitions of the same BL755 type, which it used in IEDs.¹³

A UN Monitoring Group investigated whether Kenyan forces had used cluster munitions but was unable to conclude that the KDF had dropped the BL755 submunitions during airstrikes on Gedo in January 2016. It noted, however, the absence of reports of unexploded BL755 submunitions among legacy unexploded ordnance (UXO) contamination in Somalia. Kenya denied using cluster munitions in the January 2016 air campaign, calling the Monitoring Group's report "at best, a fabricated, wild and sensationalist allegation".¹⁴

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Somalia is contaminated with ERW other than CMR, primarily as a result of conflict in 1990–2012. Contamination exists across its three major regions: south-central Somalia (including Mogadishu), Puntland (a semi-autonomous administration in the north-east), and Somaliland (a self-proclaimed, though unrecognised, state that operates autonomously in the north-west). Landmines along the border with Ethiopia, mainly as a result of legacy minefields, also exist in south-central Somalia. Contamination in Somaliland consists of mines and ERW (see Mine Action Review's *Clearing the Mines 2020* report on Somalia and Somaliland for further information of the mine problem).¹⁵

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Mine action management in Somalia continues to be divided into two geographical regions: south-central Somalia and Somaliland. The respective centre responsible for mine action in each of these areas is SEMA in Somalia and the Mine Action Department within the Somaliland Ministry of Defence.

SEMA maintains a presence across Somalia through its five Federal Member States (FMS): the Puntland State Office, Galmudug State Office, Hirshabelle State Office, South West State Office, and Jubaland State Office.¹⁶ Under each of the five states is an independent consortium of national non-governmental organisations (NGOs) implementing mine action activities.

SEMA was established in 2013 as the mine action centre for Somalia. But due to a lack of parliamentary approval of draft legislation on its mandate, SEMA has not received funding from the Federal Government of Somalia since the expiry of its grant in 2015.¹⁷ Salaries at SEMA have been covered by Norwegian People's Aid (NPA) from 2017 onwards and NPA has committed to do so until SEMA is granted parliamentary approval, pending available funding in 2021–22, which has ensured SEMA's survival.¹⁸ UNMAS supported SEMA state offices with operational incentives from January to March 2020.¹⁹ As at August 2020, a UNDP project to support SEMA with capacity development, project implementation and salaries was under discussion.²⁰

A new director of SEMA was appointed towards the end of 2019, the third in as many years, although outside of this position staff turnover within SEMA is relatively low. NPA expressed concern about the lack of commitment from the Federal Government of Somalia to mine action and the impact that it may have on fundraising efforts by operators if no serious efforts are being made by the Somali government towards official approval or financial support of SEMA.²¹

In 2019, as part of the United Kingdom Department for International Development (DFID)-funded consortium project with The HALO Trust, who provide technical training and support with quality assurance (QA) to SEMA, NPA continued its capacity development work with SEMA. In 2019, key activities included supporting information management and operational planning, providing QA and quality control (QC) training, support in donor liaison and treaty meetings, support for quarterly coordination meetings and workshops, and providing training in financial, administrative and logistical procedures. In addition to SEMA capacity development support, NPA also trained the non-technical survey, explosive ordnance risk education (EORE) and community liaison capacity of the local SEMA implementing partners in Puntland and Galmudug.²²

SEMA began conducting quarterly meetings with all mine action implementing partners in 2018, with a focus on monitoring of operations. Operators considered this a major step forward towards improving the cooperation, consultation, and coordination between SEMA and the clearance operators within Somalia.²³

PUNTLAND

The SEMA Puntland State Office, formerly known as PMAC, was established in Garowe with UN Development Programme (UNDP) support in 1999. Since then, on behalf of the regional government, the Puntland State Office has coordinated mine action with local and international partners, throughout 2019 the implementing partners were NPA and the Puntland Risk Solution Consortium.²⁴ It runs the only police explosive ordnance disposal (EOD) team in Puntland, which is responsible for collecting and destroying explosive ordnance.²⁵

SOMALILAND

The Mine Action Department within the Somaliland Ministry of Defence manages mine action in Somaliland.²⁶ The HALO Trust has reported an enabling environment for mine action with international staff able to easily obtain visas, memorandums of understanding (MoUs) can be drawn up with line ministries, and there are favourable tax regulations in place (as for international NGOs in other sectors). The HALO Trust is seeking to establish a committee for "Explosives Hazards Management" within the government to collectively discuss progress, challenges, and support for Article 5 implementation in Somaliland.²⁷

GENDER AND DIVERSITY

Somalia's National Mine Action Strategic Plan 2018–2020 recognises gender and diversity as cross-cutting issues for the national mine action programme, in line with Somalia's National Development Plan objectives to "implement gender equality in education and mainstream gender in all of its programmes with a focus on adolescent girls". The National Mine Action Strategic Plan stipulates that the mine action programme must reflect gender objectives and ensure the specific needs of women, girls, boys, and men are taken into account, including through delivery of gender-equality programming and adoption of a gender-sensitive approach by consortia and implementing partners. The Plan also recognises the importance of conducting context analyses in areas of mine action operations to clarify important gender and diversity issues, such as clan affiliation, movement patterns of local populations, and barriers to participation for different gender and age groups.²⁸ SEMA reported that gender and diversity have also been integrated into the national mine action standards.²⁹

In May 2019, SEMA informed Mine Action Review that it does not have an internal gender or diversity policy or implementation plan. It acknowledged that this was "unfortunate", and pledged that it would strive for gender balance in the future, by ensuring equal employment opportunities for qualified men and women.³⁰

SEMA also reported that within the federal State national mine action NGO consortia, there was a focus on gender in survey and community liaison teams to ensure the inclusion of all affected groups, including women and children.³¹ Operators are working towards gender-balanced survey and clearance teams. This is a challenge in Somalia as a traditionally patriarchal society where women are not usually encouraged to engage in physical work or to take up leadership roles.³² SEMA confirmed that data collection was disaggregated by sex and age, and gender taken into account in the prioritisation, planning, and tasking of survey and clearance activities,³³ although it is unclear how gender is being taken into account.

All operators confirmed that clan affiliation was also an important consideration when recruiting and deploying operational staff. It is important that the hiring process includes people from across the different clan and ethnic groups to ensure diversity and that there is sensitivity to this when teams are deployed.³⁴ Employing more women typically enables operators to access all strata of Somali society to gain information and take into account the views of all relevant groups.³⁵ In Somaliland, one third of the population are nomadic pastoralists, with many transiting between Somaliland and Ethiopia. HALO in Somaliland ensures that it employs survey staff from both a rural and urban background, and from various regions in Somaliland, to ensure that there is a strong understanding of all sections of Somaliland society.³⁶

In 2019, NPA's non-technical survey/community liaison/EORE teams were said to be gender balanced as was senior management. However, no women were working in the clearance teams, apart from medics.³⁷ In total, 25% of HALO Trust's workforce were women in 2019 and 18% of its operational personnel were women. In Somalia, 40% of women employed by the HALO Trust are in operational roles, while in Somaliland it is 47%. Women also occupy several managerial roles in both Somalia and Somaliland. In 2019, eight of the twenty new deminers hired by HALO were women.³⁸ UNMAS have been hiring local people on short-term contracts to assist clearance teams which has enabled a larger number of women to be hired and has brought the average overall female participation in mine action up to 25%. Women also constituted 27% of leadership (managerial/supervisory) positions in the UNMAS Somalia programme.³⁹

INFORMATION MANAGEMENT AND REPORTING

In 2017, ownership of the national IMSMA database was fully transferred from UNMAS to SEMA, with support and capacity-building from NPA.⁴⁰ NPA reported that IMSMA operators within SEMA were carrying out data verification and entry.⁴¹ Under the database reporting formats, CMR are recorded separately from other types of ERW.⁴² According to UNMAS, however, SEMA's database is neither up to date nor accurate.⁴³ As at August 2020, SEMA was meeting with operators to discuss synchronising operator data with the national database.⁴⁴

The Mine Action Department, the mine action authority in Somaliland, manages a separate IMSMA database. The HALO Trust stated that its data undergo monthly QA before being reported to the Mine Action Department, which uploads it onto the central database. In Somaliland, HALO creates its own data collection forms, which it says ensure accurate collection of data by its survey teams.⁴⁵

Somalia's national mine action strategic plan stipulates the submission of annual transparency reports for the CCM, along with those under the Anti-Personnel Mine Ban Convention (APMBC). In October 2019, SEMA submitted its first CCM Article 7 transparency report, which included the limited amount of information about CMR contamination. In mid-September 2020, Somalia submitted its Article 7 report covering 2019, reporting no survey and clearance during the year.

PLANNING AND TASKING

Somalia's National Mine Action Strategic Plan 2018–2020 was developed with input from SEMA, UNMAS, international operators, national NGO consortia, and international institutions in late 2017.⁴⁶ As at May 2020, with the strategic plan about to expire, it was still awaiting approval by the Minister for Internal Security.⁴⁷

The plan focuses on setting "achievable" goals over the three-year period. The strategy's five goals, identified by SEMA, are as follows:

- To enhance SEMA's ability to lead and enable effective and efficient mine action
- To develop the Somali mine action consortia into a wholly national mine action capacity
- To engage with stakeholders in order to understand, and better respond to, their mine action needs
- To achieve a mine-impact-free Somalia
- To comply with treaties binding Somalia on mines and other explosive threats.

The strategy notes Somalia's status as a State Party to the CCM and its reporting obligations and commits to complying with the Convention, but does not contain specific provisions on survey and clearance of CMR.

SEMA was developing a mine action work plan for 2020, in cooperation with the SEMA state offices, and operators, but it was not finished as of August. NPA is planning to support SEMA with an implementation plan for 2021.⁴⁸

In Somaliland, The HALO Trust has encountered a lack of political will to conclude a strategic plan or handle residual risk.⁴⁹

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

There is no national mine action legislation in Somalia. UNMAS developed National Technical Standards and Guidelines (NTSGs) for Somalia in 2012–13.⁵⁰ SEMA conducted a review of the NTSGs in 2019 with technical support from NPA and in compliance with IMAS. As at May 2020, the NTSGs were awaiting approval from the Ministry of Internal Security.⁵¹

OPERATORS AND OPERATIONAL TOOLS

In 2019, one international NGO, The HALO Trust, conducted battle area clearance (BAC) operations in Somalia and Somaliland, along with UNMAS-contracted commercial clearance company, Ukroboronservice. NPA also conducted clearance in 2019, but only of mined areas.

Table 1: Operational clearance capacities deployed in 2019⁵²

Operator	Manual teams	Total deminers*	Dogs and handlers	Machines**	Comments
Ukroboronservice (UNMAS)	4 MTTs 6 MDTs	61	0	0	Increase from 2 MTTs and 4 MDTs in 2018 Conduct BAC and mine clearance
HALO Somalia	4	38	0	0	HALO Somalia only conducted BAC in 2019
HALO Somaliland	34	259	0	2	Decrease from 2018 Conduct BAC and mine clearance
Totals	48	358	0	2	

* Excluding team leaders, medics, and drivers. ** Excluding vegetation cutters and sifters.
MTT= Mobile multi-tasking team MDT= Manual demining team.

UNMAS, through its implementing partner Ukroboronservice, deployed four mobile multi-tasking teams (MTTs) and six manual demining teams (MDTs) which are trained to carry out non-technical survey, mine clearance, BAC, EOD. In addition, 16 community liaison officers conduct non-technical survey. Operational capacity increased in 2019 compared to 2018. In 2020, if funding from the European Union (EU) is approved, capacity may increase further.⁵³

In 2019, The HALO Trust in Somalia conducted only BAC. In addition, HALO deployed eight non-technical survey teams totalling 20 personnel in Somalia, and two teams totalling eight personnel in Somaliland. The HALO Trust expected to recruit an additional eight non-technical survey and clearance/technical survey teams in 2020. No changes in capacity were expected in Somaliland in 2020. In 2019, the HALO Trust conducted tests on the application of thermite torches in Somalia and hosted a preliminary trial of Nuclear Quadrupole Resonance (NQR) technology for explosive detection in Somaliland.⁵⁴

NPA continued only mine clearance in 2019 in Somaliland/Puntland but terminated its operations in the disputed area at the end of November 2019 and closed its office at the end of January 2020.⁵⁵ In 2020, NPA was conducting mine clearance in Puntland and non-technical survey, impact assessment and explosive ordnance risk education in Galmudug and Puntland, entering into partnerships with each of the local NGO consortia.⁵⁶

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2019

There was no reported release of land contaminated with CMR in 2019. No new contamination from CMR was reported.⁵⁷ This was also the case in 2018.

The HALO Trust reported that they re-surveyed an area in Galmudug in 2019 which was recorded as contaminated with CMR but after finding no evidence, they cancelled the area.⁵⁸

According to SEMA, the primary reason that no national CMR survey had been carried out was a lack of funding for activities.⁵⁹

ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM, Somalia is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 March 2026.

It is too soon to say whether Somalia will meet its Article 4 deadline though it is not currently on track to do so. SEMA has informed Mine Action Review that key challenges which could prevent Somalia from meeting its 2026 deadline, based on current capacity, are a lack of funding and the fact that Somalia as of yet has not conducted a general survey to have a comprehensive picture of remaining CMR contamination.⁶⁰

HALO Trust echoed these concerns, stating that survey is far from complete due to limited access, combined with the fact that active conflict continues in the country.⁶¹ At the same time, NPA felt it still remained possible for Somalia to meet its Article 4 obligations in time, as contamination from CMR is believed to be relatively low and manageable. Success is dependent on access to suspected areas and the availability of funding.⁶² These concerns were also repeated by UNMAS who believed that it is unlikely Somalia will meet its Article 4 obligations due to lack of access, continued insecurity, and the lack of available resources to carry out survey and clearance.⁶³

Table 2: Five-year summary of CMR clearance

Year	Area cleared (m ²)
2019	0
2018	0
2017	0
2016	0
2015	0
Total	0

- 1 Article 7 Report (covering 2019), Form F; and emails from Mustafa Bawar, Head of Programme Management Office, UNMAS, 23 August 2020; Claus Nielsen, Country Director, NPA, 19 August 2020; and Lawrie Clapton, Country Director, HALO Trust, 23 August 2020.
- 2 Article 7 Report (covering 2019), Form F.
- 3 Ibid.
- 4 Emails from Mohamed Abdulkadir Ahmed, Director, SEMA, 14 June 2016; and Mohammad Sediq Rashid, Project Manager, UNMAS Somalia, 8 June 2017. UNMAS reported in June 2017 that these items had since been cleared.
- 5 Response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.
- 6 Presentation by Mohamed Abdulkadir Ahmed, National Director, Somali National Mine Action Authority (SNMAA), "Somalia Weapons Contamination: Addressing Key Challenges to Meeting Clearance Deadlines under the Mine Ban Convention and Convention on Cluster Munitions", African Union and International Committee of the Red Cross (ICRC) workshop, Addis Ababa, 5 March 2013.
- 7 Emails from Ghirmay Kiros, Explosive Threat Mitigation Operations Officer, UNMAS, 27 June and 29 June 2018.
- 8 Ibid.
- 9 Email from Mohammad Sediq Rashid, UNMAS, 8 June 2017.
- 10 Email from Mohamed Abdulkadir Ahmed, SNMAA, 17 April 2013.
- 11 Ibid.
- 12 "Letter dated 7 October 2016 from the Chair of the Security Council Committee pursuant to resolutions 751 (1992) and 1907 (2009) concerning Somalia and Eritrea addressed to the President of the Security Council", UN doc. S/2016/919, 31 October 2016, pp. 171-73.
- 13 Ibid.
- 14 Ibid.
- 15 UNMAS, "UN-suggested Explosive Hazard Management Strategic Framework 2015-2019", undated, pp. 6 and 12.
- 16 Email from Mohamed Abdulkadir Ahmed, SEMA, 14 October 2016.
- 17 Emails from Terje Eldøen, Programme Manager, NPA, 22 October 2016; and Mohamed Abdulkadir Ahmed, SEMA, 14 October 2016.
- 18 Email from Claus Nielsen, NPA, 23 July 2020.
- 19 Email from Mustafa Bawar, UNMAS, 3 August 2020.
- 20 Interview with Dahir Abdirahman Abdulle, SEMA, 19 August 2020.
- 21 Email from Claus Nielsen, NPA, 14 April 2020.
- 22 Ibid.; and email from Lawrie Clapton, HALO Trust, 14 June 2020.
- 23 Emails from Chris Pym, HALO Trust, 9 May 2019; and Claus Nielsen, NPA, 13 April 2019.
- 24 UNMAS, "UN-suggested Explosive Hazard Management Strategic Framework 2015-2019", p. 9; and email from Claus Nielsen, NPA, 23 July 2020.
- 25 Response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.
- 26 Email from Chris Pym, HALO Trust, 2 June 2019.
- 27 Email from Lawrie Clapton, HALO Trust, 14 June 2020.
- 28 SEMA, "Somalia National Strategic Plan, 2019", pp. 21-22.
- 29 Email from Dahir Abdirahman Abdulle, SEMA, 11 May 2020.
- 30 Email from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019.
- 31 Ibid.
- 32 Email from Lawrie Clapton, HALO Trust, 14 June 2020.
- 33 Email from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019.
- 34 Emails from Mustafa Bawar, UNMAS, 17 March 2020; Claus Nielsen, NPA, 14 April 2020; and Lawrie Clapton, HALO Trust, 14 June 2020.
- 35 Email from Lawrie Clapton, HALO Trust, 14 June 2020.
- 36 Ibid.
- 37 Email from Claus Nielsen, NPA, 14 April 2020.
- 38 Email from Lawrie Clapton, HALO Trust, 14 June 2020.
- 39 Email from Mustafa Bawar, UNMAS, 17 March 2020.
- 40 Email from Claus Nielsen, NPA, 22 March 2018.
- 41 Ibid.
- 42 Email from Claus Nielsen, NPA, 13 April 2019.
- 43 Interview with Qurat-al-Ain, Head of UNMAS Somalia Programme, UNMAS, in Geneva, 14 February 2020.
- 44 Interview with Dahir Abdirahman Abdulle, SEMA, 19 August 2020.
- 45 Email from Lawrie Clapton, HALO Trust, 14 June 2020.
- 46 Emails from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019; and Claus Nielsen, NPA, 13 April 2019.
- 47 Email from Dahir Abdirahman Abdulle, SEMA, 11 May 2020.
- 48 Skype interview with Claus Nielsen, NPA, 10 February 2020.
- 49 Email from Lawrie Clapton, HALO Trust, 10 July 2020.
- 50 Email from Terje Eldøen, NPA, 5 June 2016; and response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.
- 51 Email from Dahir Abdirahman Abdulle, SEMA, 11 May 2020.
- 52 Emails from Mustafa Bawar, UNMAS, 17 March 2020; Claus Nielsen, NPA, 14 April 2020; and Lawrie Clapton, HALO Trust, 14 June 2020.
- 53 Email from Mustafa Bawar, UNMAS, 17 March 2020.
- 54 Email from Lawrie Clapton, HALO Trust, 14 June 2020.
- 55 Skype interview with Claus Nielsen, NPA, 10 February 2020.
- 56 Skype interview with Claus Nielsen, NPA, 10 February 2020; and email, 27 August 2020.
- 57 Article 7 Report (covering 2019), Form F.
- 58 Email from Lawrie Clapton, HALO Trust, 23 August 2020.
- 59 Article 7 Report (covering 2019), Form F.
- 60 Email from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019.
- 61 Email from Lawrie Clapton, HALO Trust, 23 August 2020.
- 62 Email from Claus Nielsen, NPA, 19 August 2020.
- 63 Email from Mustafa Bawar, UNMAS, 23 August 2020.

ARTICLE 4 DEADLINE: 1 NOVEMBER 2020
HAS FULFILLED ARTICLE 4 OBLIGATIONS

KEY DEVELOPMENTS

The United Kingdom (UK) has said that UK bombing data for the Falkland Islands shows there is no evidence that cluster munitions were dropped on the four remaining minefields in Yorke Bay, which totalled an estimated 226,958m² as at end of March 2020.¹ As all other hazardous areas (including both cluster munition-contaminated and mined areas) in the Falkland Islands have already been released, there are no remaining areas in which cluster munition remnants (CMR) are suspected or confirmed.

If any CMR or other items of explosive ordnance are found following the conclusion of the United Kingdom's demining programme on the Falkland Islands, the authorities have confirmed that they will be addressed by the Explosive Ordnance Disposal (EOD) team from the Royal Air Force Armament Engineering Flight on the Falkland Islands, which has an "enduring" military presence there.

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- National Mine Action Authority (chaired by the United Kingdom Foreign, Commonwealth and Development Office (FCDO) and comprising representatives from the Ministry of Defence, the Falkland Islands Government, and a strategic advisor)
- Fenix Insight (Demining Project Office)

NATIONAL OPERATORS

- SafeLane Global (formerly Dynasafe BACTEC, and land release contractor)

INTERNATIONAL OPERATORS

- None

OTHER ACTORS

- None

UNDERSTANDING OF CMR CONTAMINATION

There are no longer any areas known or suspected to contain CMR in the Falkland Islands.²

The Falkland Islands were contaminated as a result of use of BL755 cluster bombs by British forces against Argentine positions during the 1982 armed conflict. While the Ministry of Defence conducted extensive battle area clearance (BAC) of CMR after the end of the conflict, it said in 2009 that the majority of those CMR remaining were contained within existing minefields that would be cleared in due course.³ As the United Kingdom had not previously specified which, if any, of the remaining mined areas may contain CMR based on analysis of UK bombing data, it had remained unclear whether or not these mined areas could also contain CMR. Mine Action Review had therefore continued to deem the United Kingdom to have an Article 4 obligation. In May 2020, the United Kingdom said that bombing data showed that the remaining mined areas had not been bombed. Therefore, the suspicion of CMR potentially remaining within uncleared minefields has now been removed.

Previously, in February 2009, the Ministry of Defence stated that: "According to historical records either 106 or 107 Cluster Bomb Units (CBU) were dropped by British Harriers and Sea Harriers during the conflict. Each CBU contains 147 BL755 submunitions and using the higher CBU figure (107), a total of 15,729 submunitions were dropped. Using a 6.4% failure rate assessed during in-service surveillance over 15 years, we would estimate that 1,006 would not explode. Given that 1,378 BL755s were cleared in the first year after the conflict and that a further 120 have been found and disposed of since (totalling 1,498), clearly there was a slightly higher failure rate. Even if the rate had been closer to 10% and 1,573 had failed, we can only estimate that some 70 remain but that due to the very soft nature of the peat found on the islands, many of these will have been buried well below the surface. We believe that the majority of those remaining are now contained within existing minefields and these will be cleared in due course."⁴

In 2015, the United Kingdom affirmed that no known areas of CMR contamination exist outside suspected hazardous areas (SHAs) on the islands, in particular mined areas, all of which are fenced and marked.⁵ In 1982–84, BAC was undertaken over large areas looking for submunitions and other unexploded ordnance (UXO). The United Kingdom conducted CMR clearance in the aftermath of the Falklands conflict, along with comprehensive perimeter marking of mined areas potentially containing remaining CMR. Based on bombing data, areas where unexploded submunitions were expected to be found were targeted “very quickly”, and a large number were located and destroyed. Demining operations involved both surface and subsurface clearance.⁶

The United Kingdom had previously stated that potential CMR contamination has, in part, been taken into account during mine clearance operations on the Islands, with two areas, Fox Bay 8W and Goose Green 11, selected for clearance partly based on records indicating that cluster munitions had been dropped there. No CMR were found in these two areas.⁷

Since October 2009, mine clearance operations in the Falkland Islands resulted in the destruction of a total of 21 submunitions and 1 cluster munition container.⁸ In 2010, the United Kingdom reported destruction of two submunitions in Stanley Area 3, during clearance operations across four mined areas in 2009–10.⁹ In June 2015, it reported destruction of 19 submunitions during clearance operations in January to April 2015, also in Stanley Area 3.¹⁰ UK records suggest that four cluster bombs were dropped in this area.¹¹ In June 2017, the main body of a BL755 cluster munition container was found in “minefield GG08”, during BAC in the Goose Green region. GG08 has now been declared cleared of all explosive ordnance.¹²

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

As referenced previously, the Falkland Islands is also contaminated by anti-personnel mines (see Mine Action Review's *Clearing the Mines 2020* report on the United Kingdom for further information) and other explosive ordnance. At the end of March 2020, contamination had been reduced to four mined areas totalling an estimated 226,958m², all of which are located in Yorke Bay. All four mined areas have already been technically surveyed and the United Kingdom planned to have completed clearance by the end of 2020.¹³

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

A National Mine Action Authority (NMAA) was established in 2009 to regulate, manage, and coordinate mine action on the Falkland Islands. The NMAA is chaired by United Kingdom Foreign, Commonwealth, and Development Office (FCDO) and comprises representatives from the Ministry of Defence, the Falkland Islands Government, and the programme's strategic advisor. The NMAA ensures mine action is conducted in accordance with United Kingdom and Falkland Islands' legislation, and its approval is required before cleared areas are declared completed. It meets at least once every six months, and the land release contractors (SafeLane Global; formerly Dynasafe BACTEC) and the Demining Project Office (Fenix Insight), are invited to brief the NMAA “as appropriate”.¹⁴

In addition, there is a Suspect Hazardous Area Land Release Committee (SHALARC), which is a non-decision-making body based in the Falkland Islands, composed of a local officials and a representative of the British military. SHALARC provides a forum for the contractors to discuss issues of concern or interest to the committee, and includes explanation of the land release process, including when land has been released for public use.¹⁵

Survey and clearance operations in the Falkland Islands are entirely funded by the UK Government.¹⁶ The first four phases of demining (2009 to March 2016) cost £11 million (approx. US\$14.5 million at the time),¹⁷ and an additional £27 million (approx. US\$35.5 million at current exchange rates) was committed on Phase 5 through to March 2020.¹⁸ Since 2018, the United Kingdom has sought additional financing to ensure the Programme will be fully funded through to completion, which will bring the total investment in demining of the Falklands from £38 million to £44 million (approx. US\$54 million).¹⁹

GENDER AND DIVERSITY

The UK reported that it makes every effort to ensure that the different needs and perspectives of women, girls, boys, and men are considered in planning and implementation of mine clearance activities on the Falkland Islands.²⁰

The UK government and its contractors adhere to an equal opportunities approach to recruitment for the demining programme in the Falkland Islands.²¹

The NMAA requires its contractors, SafeLane Global and Fenix Insight, to meet contractual conditions to prevent unlawful discrimination, either directly or indirectly, on the basis of race, colour, ethnic or national origin, disability, sex or sexual orientation, religion or belief, or age. The provisions also stipulate that the Contractor must adhere to the current relevant codes of practice or recommendations published by the Equality and Human Rights Commission.²²

Fenix Insight has an organisational gender policy which it applies to its demining, though there is limited opportunity to pursue it on the Falklands given the deployed "team" is composed of only one (male) person. SafeLane Global has an equal opportunities policy and selects employees based on qualification and experience, without gender restrictions. Of management level positions employed by SafeLane Global in the Falkland Islands, women occupy one third, but none of the survey or clearance staff is female.²³ According to SafeLane Global, no female deminers presented themselves during the recruitment phases for the Falkland Islands operations and only one female applicant applied for a surveyor position, but was unsuccessful as she was not the most qualified candidate for the role.²⁴

Within the FCD0 (the national authority), women are involved in the programme in key positions: Senior Responsible Officer, Deputy Senior Responsible Officer, and Project Manager.²⁵

INFORMATION MANAGEMENT AND REPORTING

The information management system is managed at two levels. The Strategic Advisor maintains the public statement of progress through a "Cumulative Totals" spreadsheet (as demonstrated in the attached annex to the United Kingdom's 2018 Article 5 deadline extension request). This forms the basis of the declarations to the Anti-Personnel Mine Ban Convention (APMBC) Meetings of States Parties. Also, the Demining Project Office and the Land Release Contractor use an operational-level planning and information management tool which guides the work and ultimately leads to the Handover Certificate at the conclusion of each task.²⁶

Historically, the United Kingdom has not collated data on area cancelled and on area reduced,²⁷ and does not disaggregate land released through technical survey from land released through clearance in its reporting.²⁸

PLANNING AND TASKING

The United Kingdom is in the fifth and final phase of mine clearance, which includes tackling the most technically-challenging and environmentally-sensitive minefields.²⁹ The United Kingdom had expected that eight mined areas would remain upon completion of Phase 5(b) in March 2020, covering an estimated 163,460m².³⁰ In April 2020, the United Kingdom reported that only four mined areas in fact remained, totalling an estimated 226,958m², all of which are located in Yorke Bay.³¹

In April 2020, the United Kingdom confirmed that it had sought additional financing to ensure the Programme will be fully funded through to completion.³²

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

The United Kingdom does not have its own national mine action standards, but survey and clearance operations on the Falkland Islands are reported to meet or exceed the International Mine Action Standards (IMAS), by adapting IMAS to meet the specifics of the situation on the Falkland Islands.³³ Each project's Statement of Requirement contains the standards specific to the tasks being addressed.³⁴

The United Kingdom reported that it has "followed the principles set out in IMAS 09.10 (Clearance Requirements) and is very conscious of the statement that "The beneficiaries of humanitarian demining programmes must be confident that cleared and released land is safe for their use. This requires management systems and clearance procedures which are appropriate, effective, efficient and safe." The UK and its contractors have used all reasonable effort to achieve the best practicable outcome. On the issue of post clearance safety, the UK continues to use the principles set out in UK Health and Safety legislation to reduce the residual risk to As Low As Reasonably Practicable (ALARP) which is similar to the IMAS concept of 'all reasonable effort'.³⁵

OPERATORS AND OPERATIONAL TOOLS

The Land Release Contractor in the Falkland Islands is selected by international competitive tender prior to each phase, as required by the European Union. SafeLane Global (formerly Dynasafe BACTEC), was awarded the land release contract for the current and final phase of demining operations in the Falkland Islands, as for the previous four phases.³⁶

SafeLane Global's operational capacity in the Falkland Islands in 2019 remained constant at seven manual clearance teams totalling 56 manual deminers (excluding team leaders and medics) and 16 mechanical assets, including sifters which are critical to the project.³⁷

The Demining Project Office, which implements the policies of the NMAA and monitors the land release operations on the Falkland Islands, is also awarded through competitive tender. Fenix Insight has been awarded responsibility for the Demining Project Office for all five stages of demining.³⁸

Drones have been used for reconnaissance over large areas not accessible behind minefield fences and for aerial

mapping. Use of drones to overfly SHAs helped to identify mine "dump" locations, row markers, and other evidence that might have otherwise taken a manual team several days to locate. The United Kingdom deems the use of drones to be an excellent addition to the demining toolbox and continues to use them when appropriate.³⁹ Yorke Bay, where the remaining mined areas are located, is a very large sandy area with dunes up to 10 metres in height. Aerial drones provide a viewpoint that is not otherwise available.⁴⁰

Technical survey during phase 5(b) helped determine the most effective clearance methods given the unique conditions of the four remaining minefields at Yorke Bay and have informed the clearance plan. Technical survey identified where block excavation down to the rock or clay layer could take place, suggesting a combination of techniques (mechanical and manual clearance where necessary) and types of equipment to use, including sifting buckets, dump trucks, and screening machines.⁴¹

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2019

No submunitions were found in the Falkland Islands in 2019, but 319 anti-personnel mines, 108 anti-vehicle mines, and 6 items of UXO were destroyed during survey and clearance operations which saw the release of 15 SHAs.⁴²

ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR UNITED KINGDOM: 1 NOVEMBER 2010



ARTICLE 4 DEADLINE: 1 NOVEMBER 2020 (HAS FULFILLED ARTICLE 4 OBLIGATIONS)

The United Kingdom has fulfilled its obligation under Article 4 to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 November 2020. In May 2020, the United Kingdom confirmed that UK bombing data for the Falkland Islands showed there is no evidence that cluster munitions were dropped on the four remaining minefields in Yorke Bay, which as at the end of March 2020, totalled an estimated 226,958m².⁴³ According to the United Kingdom, bombing data records have been analysed many times since 1982 and all known BL755 strike targets were checked by British Troops over the years. All items found were destroyed.⁴⁴

The United Kingdom had not considered itself to have an obligation under Article 4 of the CCM, and had reported that it considered that it had made every effort to identify all cluster munition contaminated areas under its jurisdiction or control. It believes any remaining CMR, if found to exist, to be "residual."⁴⁵

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

Full and accessible records of all survey and clearance undertaken will be retained by national authorities in the Falkland Islands and the United Kingdom.⁴⁶ As reported above, the United Kingdom has bombing data of the cluster munition strikes on the Falkland Islands and has cleared all cluster munition contaminated areas. The United Kingdom believes there is a very low risk of previously unknown mine contamination being discovered post completion, but that it remains a possibility as there is no complete record of mines laid on the Falkland Islands.

If a mine or other item of explosive ordnance is found following the conclusion of the demining programme, it will be addressed by the EOD team from the UK's Royal Air Force Armament Engineering Flight on the Falkland Islands, which has an "enduring" military presence there.⁴⁷

- 1 Email from an official in the Counter Proliferation and Arms Control Centre, Foreign and Commonwealth Office (FCO), 18 May 2020; and FCO, Falklands Demining Programme Work Plan under Article (5), 30 April 2020, pp. 3–4.
- 2 There is a sovereignty dispute over the Falkland Islands/Malvinas with Argentina, which claims jurisdiction over the Malvinas. Argentina is not, though, a State Party to the CCM.
- 3 Letter to Landmine Action from Lt.-Col. Scott Malina-Derben, Ministry of Defence, 6 February 2009; and email correspondence from a Foreign Office Official, Conventional Arms Policy Officer, Arms Export Policy Department, FCO, 11 June 2015.
- 4 Ibid.
- 5 Email from an official in the Arms Export Policy Department of the FCO, 1 July 2015.
- 6 Ibid.
- 7 Ibid.
- 8 Second Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request (2018), p. 6.
- 9 Statement of United Kingdom, APMBC Tenth Meeting of States Parties, Geneva, 1 December 2010.
- 10 Email from an official in the Arms Export Policy Department of the FCO, 11 June 2015.
- 11 Email from an official in the Arms Export Policy Department of the FCO, 1 July 2015.
- 12 Emails from an official in the Arms Export Policy Department of the FCO, 22 and 23 June 2017.
- 13 FCO, Falklands Demining Programme Work Plan under Article (5), 30 April 2020, pp. 3–4; and email from an official in the Counter Proliferation and Arms Control Centre, FCO, 18 May 2020.
- 14 2018 Article 5 deadline Extension Request, p. 8; and FCO, Falklands Demining Programme Work Plan under Article (5), 30 April 2020, p. 7.
- 15 Ibid.
- 16 2018 Article 5 deadline Extension Request.
- 17 Ibid., pp. 3 and 10.
- 18 Email from an official in the Counter Proliferation and Arms Control Centre, FCO, 24 April 2019.
- 19 FCO, Falklands Demining Programme Work Plan under Article (5), 30 April 2020, p. 4.
- 20 United Kingdom, "Submission of information for the Convention's website", Intersessional Meetings, 30 June–2 July 2020.
- 21 Statement of the United Kingdom, Fourth APMBC Review Conference, Oslo, 27 November 2019.
- 22 Email from an official in the Counter Proliferation and Arms Control Centre, FCO, 18 May 2020; and Article 7 Report (covering 2019), "Additional Reporting for 2019".
- 23 Ibid.
- 24 Email from an official in the Counter Proliferation and Arms Control Centre, FCO, 10 July 2020.
- 25 Email from an official in the Counter Proliferation and Arms Control Centre, FCO, 18 May 2020; and Article 7 Report (covering 2019), "Additional Reporting for 2019".
- 26 Email from an official in the Counter Proliferation and Arms Control Centre, FCO, 21 August 2018.
- 27 2018 Article 5 deadline Extension Request, Annex A.
- 28 Article 7 Report (covering 2019), Form F; and email from an official in the Counter Proliferation and Arms Control Centre, FCO, 18 May 2020.
- 29 Statement of the United Kingdom, Fourth Review Conference, Oslo, 27 November 2019.
- 30 2018 Article 5 deadline Extension Request, pp. 7 and 14.
- 31 FCO, Falklands Demining Programme Work Plan under Article (5), 30 April 2020, pp. 3–4.
- 32 Ibid., pp. 4–5.
- 33 Email from an official in the Counter Proliferation and Arms Control Centre, FCO, 26 June 2018; 2018 Article 5 deadline Extension Request, pp. 3 and 7; Article 7 Report (covering 2016), Form F; and FCO, Falklands Demining Programme Work Plan under Article (5), 30 April 2020, p. 5.
- 34 Email from an official in the Counter Proliferation and Arms Control Centre, FCO, 15 July 2016.
- 35 FCO, Falklands Demining Programme Work Plan under Article (5), 30 April 2020, p. 5.
- 36 2018 Article 5 deadline Extension Request, p. 9.
- 37 Email from an official in the Counter Proliferation and Arms Control Centre, FCO, 18 May 2020.
- 38 2018 Article 5 deadline Extension Request, p. 9.
- 39 Emails from an official in the Counter Proliferation and Arms Control Centre, FCO, 15 July 2016, 28 July 2018, 24 April 2019, and 10 July 2020; and 2018 Article 5 deadline Extension Request, p. 8.
- 40 Email from an official in the Counter Proliferation and Arms Control Centre, FCO, 10 July 2020.
- 41 FCO, Falklands Demining Programme Work Plan under Article (5), 30 April 2020, p. 3; and email from an official in the Counter Proliferation and Arms Control Centre, FCO, 18 May 2020.
- 42 Article 7 Report (covering 2019), Form F; and email from an official in the Counter Proliferation and Arms Control Centre, FCO, 18 May 2020.
- 43 Email from an official in the Counter Proliferation and Arms Control Centre, FCO, 18 May 2020; and FCO, Falklands Demining Programme Work Plan under Article (5), 30 April 2020, pp. 3–4.
- 44 Email from an official in the Counter Proliferation and Arms Control Centre, FCO, 18 May 2020; and FCO, Falklands Demining Programme Work Plan under Article (5), 30 April 2020, pp. 3–4.
- 45 Interview with an official in the Arms Export Policy Department of the FCO, and with Lt.-Col. John Stroud-Turp, Security Policy and Operations, Ministry of Defence, in Geneva, 22 June 2015; and email from an official in the Arms Export Policy Department of the FCO, 15 March 2019.
- 46 APMBC 2018 Article 5 deadline Extension Request, Additional Information received 6 August 2018; and email from an official in the Counter Proliferation and Arms Control Centre of the FCO, 24 April 2019.
- 47 2018 Article 5 deadline Extension Request, Additional Information received 6 August 2018; email from an official in the Counter Proliferation and Arms Control Centre of the FCO, 24 April 2019; and FCO, Falklands Demining Programme Work Plan under Article (5), 30 April 2020, p. 5.

SIGNATORY STATES

The background of the page is composed of several overlapping, semi-transparent geometric shapes in various shades of green. A prominent feature is a wide, light-green diagonal band that runs from the bottom-left towards the top-right. Other shapes include a large, dark-green trapezoid in the upper right, a medium-green trapezoid in the middle, and various smaller polygons and bands in lighter and darker green tones, creating a layered, abstract effect.

RECOMMENDATIONS FOR ACTION

- Angola should ratify the Convention on Cluster Munitions (CCM) as a matter of priority.
- Angola should confirm whether it believes that cluster munition remnants (CMR) remain on its territory.
- Angola should comply with its obligations under international human rights law to clear CMR on territory under its jurisdiction or control as soon as possible.
- Angola should elaborate specific land release and residual contamination targets that refer to CMR contamination.

UNDERSTANDING OF AP MINE CONTAMINATION

The extent to which Angola is affected by CMR is still unclear. There are no reports of confirmed contamination. According to Angola's national mine action authority, the National Intersectoral Commission for Demining and Humanitarian Assistance (Comissão Nacional Intersectorial de Desminagem e Assistência Humanitária, CNIDAH), 18 submunitions were found and destroyed in 2018, and a total of 164 submunitions were found and destroyed in 2017 as a result of explosive ordnance disposal (EOD) spot tasks and community call-outs.¹ In the APMBC Article 5 implementation Workplan 2020–2025, it is reported that 24 submunitions were found and destroyed in 2017–19.² There were no reports of submunitions being found in 2019 by either CNIDAH or operators and prior to 2017 CNIDAH had not previously reported on the discovery of submunitions.³

CNIDAH reported that no CMR specific survey or clearance was carried out in 2019 and the national database does not contain any polygons pertaining to areas of CMR contamination.⁴ None of the international mine action operators working in Angola has reported finding any significant areas of CMR contamination or submunitions since 2008.⁵ In 2018, in November, Mines Advisory Group (MAG) reported that a single Russian-made AO-1-Sch submunition was brought in for destruction by a local community member to its operations near to Kapuluta village, Luvuei commune, in Moxico province. As at April 2019, community liaison teams had been sent to survey the surrounding farmlands for further information, but MAG did not have any evidence that additional CMR would be found.⁶

Previously, the last reported instance of an international mine action NGO locating CMR was in August 2016, when The HALO Trust found two Alpha submunitions in Cunene province. The submunitions were reported by local residents to a HALO Trust survey team during re-survey operations.⁷ Prior to this, HALO Trust reported finding and destroying 12 submunitions in 2012. The HALO Trust informed Mine Action Review that these were isolated cases and noted that it had seen very little evidence of cluster munition strikes in Angola. With these exceptions, as at May 2019, NGO clearance operators in Angola had not found any other CMR in more than ten years.

The HALO Trust has also reported that the majority of CMR destroyed over the course of its operations were the result of the disposal of old or unserviceable cluster munitions identified by HALO Trust's Weapons and Ammunition Disposal (WAD) teams in military storage areas, some of which were earmarked for destruction by the Angolan Armed Forces. Between 2005 and 2012, HALO Trust WAD teams reported destroying a total of 7,284 submunitions.⁸ In 2018, The HALO Trust confirmed it had not been asked by the military to do any further destruction of cluster munition stockpiles since 2012.⁹

CMR contamination was a result of the decades of armed conflict that ended in 2002, although it is unclear when, or by whom, cluster munitions were used in Angola.¹⁰

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Angola is heavily contaminated with landmines and explosive remnants of war (ERW) other than CMR (see Mine Action Review's *Clearing the Mines 2020* report on Angola for further information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Angola's national mine action programme is managed by two mine action structures. CNIDAH serves as the national mine action authority and reports to the Council of Ministers or, in effect, to the Presidency of the Republic. Surprisingly, the other coordination body, the CED, reports to the Ministry of Social Action, Family, and Women's Promotion (MASFAMU). The CED's main role is to coordinate and manage four national operators: The Demining Brigades of the Security Unit of the President of the Republic, the Angolan Armed Forces, the National Demining Institute (INAD) and the Brigades of the Angolan Border Guard Police. And while Presidential Decrees stipulate the mandates of both CNIDAH and the CED, there are clear overlaps and ambiguities as to the exact division of labour and their related roles and responsibilities.¹¹

Tensions between these entities lessened significantly in 2019 as CNIDAH, over the past three years, has focused on reorganising the mine action sector and the CED is now more aligned with their approach and more concentrated on getting the job done.¹² As at April 2020, CNIDAH was in the process of changing its legal status from a commission to the Angola National Demining Agency (ANAM), which, it is hoped, will strengthen coordination mechanisms and information sharing between the different national bodies.¹³

Angola's mine action programme has faced critical challenges in securing financial resources in recent years. In 2019, a draft resource mobilisation strategy was developed and, as at April 2020, was still under review.¹⁴ According to the National Mine Action Strategy 2020–2025 Objective 5 the resource mobilisation strategy will be developed and approved before the end of 2020 with CNIDAH taking the lead in its development.¹⁵

GENDER AND DIVERSITY

Gender and diversity are integrated into Angola's National Mine Action Strategy 2020-25 as a cross-cutting issue. However, while the Strategy pledges that Angola's mine action programme will ensure that gender and diversity considerations are taken into consideration in the planning, implementation and monitoring phases of all mine action projects, it does not say how this will be done and there is no mention of gender or diversity in Angola's APMBBC Article 5 Implementation Workplan 2020–2025.

INFORMATION MANAGEMENT AND REPORTING

Angola's mine action programme has long suffered from significant problems with information management, in particular the poor quality of the CNIDAH national database. Throughout 2019, the database was reconciled, updated, and quality assured.¹⁶ CNIDAH reported that, as at November 2019, the national IMSMA database had been fully reconciled with operators' data, and the previous data backlog and overinflated contamination figures have been cleared. As a consequence, CNIDAH and operators now consider the national database to be a reliable source of information.¹⁷

PLANNING AND TASKING

Angola's National Mine Action Strategy 2020–2025 was developed by CNIDAH, in 2019, with support from the GICHD. There are five objectives within the strategy, two of which refer to explosive ordnance although there is no specific mention of CMR.

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

While national mine action standards (NMAS) are in place in Angola, they do not contain provisions specific to CMR survey or clearance.

OPERATORS AND OPERATIONAL TOOLS

Four international NGOs conducted demining for humanitarian purposes in Angola in 2019: APOPO, The HALO Trust, MAG, and Norwegian People's Aid (NPA). None of the operators carried out any CMR-specific survey or clearance in 2019.

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2019

There was no reported survey or clearance of cluster munition-contaminated area in 2019 and no CMR were found during explosive ordnance disposal (EOD) spot tasks.

PROGRESS TOWARDS COMPLETION

Angola is a signatory, but not a state party, to the CCM. It was reported to Mine Action Review in April 2020 that CNIDAH was in the process of engaging the government of Angola to ratify the CCM.¹⁸ In addition to its legal obligations as a treaty signatory, Angola has obligations under international human rights law to clear any CMR on its territory as soon as possible. It has not publicly reported a date as to when it might be able to declare its territory free of CMR contamination nor a strategy for doing so.

- 1 CNIDAH, "Angola Mine Action Programme 2019-2025", Newsletter, 1st Edn, February 2019, at: bit.ly/2E2HVfo. The CNIDAH newsletter reported that 85 submunitions were found and destroyed in 2018; however this was later clarified to have been misreported in the database and that a total of 18 submunitions were found in 2018. Emails from Robert Iga Afedra, Capacity Development Advisor, NPA, 27 April, 19 May, and 4 July 2019.
- 2 CNIDAH, Article 5 Implementation Workplan 2020-2025, November 2019, p. 4.
- 3 Emails from Robert Iga Afedra (on behalf of CNIDAH), 1 April 2020; Ralph Legg, Programme Manager, HALO Trust, 30 March 2020; Jeanette Dijkstra, Country Director, MAG, 20 May 2020; Manuel João Agostinho, Programme Manager, APOPO, 9 March 2020; and Miroslav Pisarević, Country Director, NPA, 28 March 2020.
- 4 Email from Robert Iga Afedra, NPA, on behalf of CNIDAH, 1 April 2020.
- 5 Prior to this, in February 2008, NPA reported clearing 13 submunitions in Kwanza Sul province; MAG reported clearing 140 submunitions in Moxico province; and The HALO Trust reported clearing 230 submunitions in Bié province. NPA reported finding no CMR during its operations in northern Angola, with the exception of a small number of submunitions found in 2008. Menschen gegen Minen (MgM) reported that no CMR had been discovered in its areas of operations in south-east Angola from 1997 through to May 2016 including near Jamba, an area in the south-east of the province where contamination might have been expected. Response to questionnaire by Gerhard Zank, Programme Manager, HALO Trust, 19 March 2013; and emails from Vanja Sikirica, Country Director, NPA, 11 May 2016; Kenneth O'Connell, Technical Director, MgM, 5 May and 15 June 2016; Gerhard Zank, HALO Trust, 17 May 2016; Bill Marsden, Regional Director, East and Southern Africa, MAG, 18 May 2016; and Mohammad Qasim, United Nations Development Programme (UNDP)/CNIDAH, 22 February 2008.
- 6 Email from Shadrack Njamba, Programme Operations Coordinator, MAG, 18 April 2019.
- 7 A number of damaged bomb casings were also found but, according to HALO, it was unclear if the bombs had been fired at a target or if they were jettisoned after an unsuccessful mission and the bomblets scattered on the ground. The Alpha bomblet was developed in Rhodesia in 1970 and later in South Africa in the 1980s. It was produced to be incorporated into the CB470 cluster bomb, which contained 40 Alpha submunitions. Email from Gerhard Zank, HALO Trust, 2 May 2017; and Weapons Systems, "CB470", at: bit.ly/2JdO1hL.
- 8 Response to questionnaire by Gerhard Zank, HALO Trust, 19 March 2013.
- 9 Email from Gerhard Zank, HALO Trust, 17 May 2018.
- 10 Interviews with Jose Antonio, Site Manager, Cuando Cubango, HALO Trust; and with Coxe Sucama, Director, INAD, in Menongue, 24 June 2011.
- 11 Angola National Mine Action Strategy 2020-2025, pp. 5-6.
- 12 Email from Robert Iga Afedra, (on behalf of CNIDAH), 14 July 2020.
- 13 Wilton Park, "Landmine clearance in Angola: experiences, challenges and implications for national development and international reputation", Report on event organised in association with the British Embassy in Luanda and MAG, 4-7 November 2019, at: bit.ly/31U3VGo.
- 14 Email from Robert Iga Afedra (on behalf of CNIDAH), 1 April 2020.
- 15 Angola National Mine Action Strategy 2020-2025, pp. 29-31.
- 16 Emails from Manuel João Agostinho, APOPO, 9 March 2020; and from GICHD, 13 May 2020.
- 17 Statement by Angola on Article 5 implementation, Fourth APMBC Review Conference, Oslo, November 2019; Email from Jeanette Dijkstra, MAG, 24 August 2020.
- 18 Email from Robert Iga Afedra, NPA (on behalf of CNIDAH), 1 April 2020.

RECOMMENDATIONS FOR ACTION

- The Democratic Republic of Congo (DRC) should ratify the Convention on Cluster Munitions (CCM) as a matter of priority.
- DRC should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- The Congolese Mine Action Coordination Centre (CCLAM) should specify what arrangements it is making for the long-delayed survey of Aru and Dungu territories.
- The DRC should submit a detailed work plan, including a timeline for survey and/or clearance of all remaining CMR contamination and prompt, regular, and comprehensive reports on the progress of survey and clearance.
- The DRC should detail its plans for sustainable capacity to tackle previously unidentified hazards.

UNDERSTANDING OF CMR CONTAMINATION

The DRC has a small amount of contamination by CMR but has not produced an up-to-date estimate and the precise extent remaining is not known. CCLAM reported in mid-2019 that DRC had six areas of confirmed CMR contamination in four provinces and covering a total of 81,484m² (see Table 1).¹ Mine Action Review believes at least three of these areas have already been cleared, but has received no further information from CCLAM in this regard.

The first estimate of CMR contamination came from a national survey that CCLAM said was carried out in tandem with a survey of anti-personnel mine contamination in 2013–14. Five confirmed hazardous areas covering 17,590m² were found to contain CMR, all of which have since been cleared. The survey did not, however, cover Aru, a territory in Ituri province, and Dungu, a territory in Haut Uele province, where insecurity prevented access by survey teams. The DRC's most recent National Mine Action Strategy 2018–19, prepared with support from the Geneva International Centre for Humanitarian Demining (GICHD) and finalised in November 2017, said that in addition to mines and explosive remnants of war (ERW), "some areas contaminated by submunitions have also been reported but the areas affected remain negligible".²

Table 1: Cluster munition-contaminated area by province (at end 2018)³

Province	Territory	CHAs	Area (m ²)
Ituri	Aru	3	40,750
South Kivu	Shabunda	1	719
Tanganyika	Kalemie	1	37,000
Tshopo	Bangelema	1	3,015
Totals		6	81,484

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The mine action sector is overseen by the Commission Nationale de Lutte Antimines (CNLAM), a multi-sectoral body which is supposed to meet twice a year and is composed of deputies from both parliamentary chambers, officials from four ministries, and representatives of five civil society organisations linked to mine action.⁴

Management of the sector is under CCLAM, which was established in 2012 with support from the United Nations Mine Action Coordination Centre (UNMACC) and the UN Mine Action Service (UNMAS).⁵ It is responsible for setting strategy, accrediting operators, information management, budgeting, and resource mobilisation. Law 11/007 of 9 July 2011 underpins the national mine action programme.⁶ CCLAM took over from UNMAS as the national focal point for demining in early 2016 overseeing accreditation, issuing task orders, conducting quality assurance (QA)/quality control (QC) and managing the national database but lack of capacity remained a concern for operators.⁷ The government has provided funding for CCLAM's operating expenses, amounting to US\$530,000 in 2018, but has not provided funding for operations.⁸

UNMACC, established in 2002 by UNMAS, previously coordinated mine action through offices in the capital, Kinshasa, and in Goma, Kalemie, Kananga, Kisangani, and Mbandaka. UNMACC was part of the UN Stabilization Mission in the DR Congo (MONUSCO). In 2014, in accordance with Security Council Resolution 2147 (2014), humanitarian mine action was removed from MONUSCO's mandate.⁹ UNMAS, working in 2019 with 18 international and 18 national staff, continues to support CCLAM in planning and implementing CCLAM's 2018–19 mine action strategy and building CCLAM's capacity on information management.¹⁰

GENDER AND DIVERSITY

The national mine action strategy for 2018–19 stipulated that all mine action activities, particularly those related to risk education and victim assistance, must reflect the different needs of individuals according to age and gender, in a non-discriminatory manner. It also stated that the principles of non-discrimination against women as set out in the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and UN Security Council Resolution 1325 (2000) are to be respected, ensuring that women are involved in all essential stages of mine action (planning, implementation, monitoring, and evaluation), and that activities take into account the special needs of women and girls.¹¹

CCLAM reported that approximately 30% of operational staff in survey and clearance teams were female in 2019, but only around 7% of managerial or supervisory positions were held by women, reportedly due in part to barriers presented by local customs about the employment roles appropriate for women. CCLAM reported that mine action survey teams are gender balanced and that efforts are undertaken to ensure that all community groups, including women and children, are consulted. It also noted, however, the need to continue raising awareness on gender equality in certain communities as local customs can discriminate against women undertaking certain categories of work.¹²

INFORMATION MANAGEMENT AND REPORTING

CCLAM took over responsibility for information management from UNMAS in 2016 but has lacked the capacity and resources to manage data and operate effectively the national Information Management System for Mine Action (IMSMA) database. The 2018–19 national strategy acknowledged a need to build staff capacity, improve data collection, update the database on a regular basis, and provide data disaggregated by age and gender.¹³ Continuing issues in 2019 included gaps in data; lack of maintenance; reporting on land release that did not comply with international terminology; misreporting items of unexploded ordnance (UXO) as mines; and a lack of verification of incoming reports.¹⁴

UNMAS continued its long-running support to the database in 2019, assisting monthly updates of data to improve operational coordination, collaborating on developing an information management work plan, and providing a range of computer and digital hardware.¹⁵ Norwegian People's Aid (NPA) has also provided refresher training for CCLAM staff in use of IMSMA and the associated Geographic Information System (GIS).¹⁶

PLANNING AND TASKING

The National Mine Action Strategy 2018–19, prepared with support from UNMAS and the GICHD, focused on seeking to fulfil the DRC's Anti-Personnel Mine Ban Convention's Article 5 obligations by 2020, one year ahead of its extended 2021 deadline.¹⁷ The strategy also set out the objective of completing procedures for ratifying the Convention on Cluster Munitions by the end of 2018, a plan which has yet to be implemented.¹⁸

The strategy identified three strategic pillars: effective and efficient management of the explosive threat; ensuring the national programme had the capacity to manage residual contamination in a sustainable manner; and that the legal framework of the mine action programme was strengthened through the adoption of national laws and other implementing measures and adherence to relevant treaties.¹⁹ None of these goals was met.

Tasking continues to be challenged by the remote location of many hazardous areas and database weaknesses, including misidentification of ERW as mine contamination and the addition of hazards to the database without robust evidence of the presence of explosive ordnance. Instead of prioritising tasks, NPA adopted a province-by-province approach as a more efficient way to deal with the logistical challenges and costs of tackling tasks separated by big distances.²⁰

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

The DRC has 24 national standards developed with support from the GICHD²¹ and the national strategy for 2018–19 called for revision of the standards and awareness raising of their content through training.²² CCLAM reported in June 2019 it had revised the National Technical Standards and Guidelines (NTSGs) during 2018, amending mainly the standards relating to demining techniques and safety of deminers.²³

OPERATORS AND OPERATIONAL TOOLS

The number of operators active in the DRC has fallen in the past two years to the point where DanChurchAid, NPA, and TDI were the only international organisations active in survey and clearance in 2019.

NPA operated with three teams conducting non-technical survey and manual mine clearance as well as explosive ordnance disposal (EOD) spot tasks in 2019.²⁴ NPA continued survey in early 2020, but operations ended in February 2020 and the programme officially closed at the end of March 2020.²⁵

TDI continued operating in 2019 under contract to UNMAS, working with two teams and a total of twenty-four deminers. It carried out surveys in Ituri and Tanganyika provinces. It also conducted spot EOD and risk education in support of the UN peacekeeping operation, MONUSCO, working in the territories of Aru (Ituri province), Kalemie (Tanganyika province), and Shabunda town (South Kivu province).²⁶

UNMAS contracted three national NGOs - Afrique pour la Lutte Antimines (AFRILAM), Bureau des Actions de Développement et des Urgences (BADU) and Groupe Africain de Déminage, Développement et Environnement (GADDE) to conduct non-technical survey and explosive ordnance risk education in Ituri (Irumu, Djugu, Aru), and South Kivu (Kabare, Shabunda), Tanganyika (Kalemie, Moba).²⁷

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2019

The DRC did not report outcomes of survey and clearance in 2019. In 2019, TDI, through two multi-task teams contracted by UNMAS, released a total of 174,315m² of battle area, including cluster munition-contaminated area. Of this total 107,194m² was released by clearance.²⁸

SURVEY IN 2019

Non-technical survey conducted by TDI's teams in 2019 cancelled 57,760m² of suspected hazardous area in Ituri province and reduced 9,045m² through technical survey. They reduced another 316m² in Tanganyika province.²⁹

CLEARANCE IN 2019

TDI teams cleared 107,194m² of battle area, including cluster munition-contaminated area, in three provinces in 2019 (see Table 2), a significant increase over the clearance of 43,000m² reported by CCLAM for the previous year. TDI destroyed 150 submunitions in 2019, most in the course of EOD spot tasks. A further 17,050m² was cleared between January and 14 March 2020.³⁰

Table 2: Battle area clearance by TDI in 2019³¹

Province	Territory	Area cleared (m ²)	Submunitions destroyed*	Total UXO destroyed
Ituri	Aru, Djugu, Irumu	30,617	12	63
South Kivu	Kabare, Shabunda	11,162	25	56
Tanganyika	Kalemie, Moba	65,415	113	272
Totals		107,194	150	391

* Includes items destroyed in the course of EOD spot tasks.

PROGRESS TOWARDS COMPLETION

The battle area cleared by TDI in 2019 far exceeds the area thought to be contaminated by CMR, underscoring the need for CCLAM to provide an updated summary of CMR-contaminated areas that were cleared in the last three years, the confirmed CMR hazards still outstanding, and any areas that still require survey.

As a CCM signatory, DRC had set a target of ratifying the convention by the end of 2018 but has left that target unfulfilled and has provided no clarity on its plans for survey or clearance of CMR nor a timeline for completion.

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- 1 Email from Maître Sudi Alimasi Kimputu, Coordinator, CCLAM, 3 June 2019.
 - 2 "Stratégie Nationale de Lutte Antimines en République Démocratique du Congo 2018-2019", CCLAM, November 2017, p. 8.
 - 3 Ibid.
 - 4 Ibid., p. 11.
 - 5 Ibid.
 - 6 Email from Maître Sudi Alimasi Kimputu, Director, CCLAM, 3 June 2019.
 - 7 Emails from Jean-Denis Larsen, NPA, 5 March 2018; Bill Marsden, MAG, 11 May 2018; and Guillaume Zerr, Humanity and Inclusion, 24 May 2018.
 - 8 Email from Maître Sudi Alimasi Kimputu, CCLAM, 3 June 2019.
 - 9 UN Security Council Resolution 2147, 28 March 2014.
 - 10 Email from Aurelie Fabry, Programme Officer, UNMAS, 13 April 2020.
 - 11 "Stratégie Nationale de Lutte Antimines 2018-2019", November 2017, pp. 15-16.
 - 12 Email from Maître Sudi Alimasi Kimputu, CCLAM, 3 June 2019.
 - 13 "Stratégie Nationale de Lutte Antimines 2018-2019", November 2017, p. 14.
 - 14 Skype interview with Jean-Denis Larsen, NPA, 24 April 2019; and email, 24 May 2019.
 - 15 Email from Aurelie Fabry, UNMAS, 13 April 2020.
 - 16 Email from Jean-Denis Larsen, NPA, 24 May 2019.
 - 17 "Stratégie Nationale de Lutte Antimines 2018-2019", November 2017, p. 4.
 - 18 Ibid., p. 23.
 - 19 Ibid., p. 5.
 - 20 Skype interviews with Jean-Denis Larsen, NPA, 24 April 2019 and 16 May 2020; and email, 24 May 2019.
 - 21 Statement of DRC, APMBC Intersessional Meetings, 2 July 2020.
 - 22 "Stratégie Nationale de Lutte Antimines 2018-2019", November 2017, p. 34.
 - 23 Skype interview with Jean-Denis Larsen, NPA, 24 April 2019; and email, 24 May 2019.
 - 24 Ibid.
 - 25 Skype interview with Jean-Denis Larsen, NPA, 16 April 2020.
 - 26 Emails from Aurelie Fabry, UNMAS 20 June 2019 and 13 April 2020.
 - 27 Email from Sasha Bhatnagar, Associate Programme Officer, UNMAS, 14 August 2020.
 - 28 Email from Aurelie Fabry, UNMAS, 20 August 2020.
 - 29 Ibid.
 - 30 Emails from Aurelie Fabry, UNMAS, 20 and 21 August 2020.
 - 31 Email from Aurelie Fabry, UNMAS, 20 August 2020.

STATES NOT PARTY

The background of the page is composed of several overlapping, semi-transparent geometric shapes in various shades of green, ranging from a light lime green to a dark forest green. These shapes create a dynamic, layered effect. The text 'STATES NOT PARTY' is positioned in the upper left quadrant, rendered in a bold, white, sans-serif font.

RECOMMENDATIONS FOR ACTION

- Azerbaijan should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Azerbaijan should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.

UNDERSTANDING OF CMR CONTAMINATION

The precise extent of contamination from CMR in Azerbaijan is unknown, as Armenian forces currently occupy a significant area of the country, where the contamination exists. There may also be some residual contamination in territory under government control.¹

Large quantities of cluster munitions were dropped during the 1988 conflict between Azerbaijan and Armenia. Following the cease-fire in 1994, tensions flared up again in April 2016 when fighting broke out briefly along the Line of Contact (LOC). While ground fighting was confined to areas close to the LOC, artillery fire penetrated more than 10km into Nagorno-Karabakh, and included use of cluster munitions. The HALO Trust has calculated the four days of hostilities added 2.4km² of CMR contamination, all of which has since been cleared.² However, no CMR contamination has been reported on the Azerbaijan-controlled side of the LOC (see the Mine Action Review *Clearing Cluster Munition Remnants* report on Nagorno-Karabakh for further information). In July 2020, fighting broke out between Azerbaijan and Armenia around the Tavush region in north-east Armenia, some 300km (190 miles) from Nagorno-Karabakh. There were, however, no reports of cluster munitions being deployed.³

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Other areas are confirmed or suspected to contain explosive remnants of war (ERW): both unexploded ordnance (UXO) and abandoned explosive ordnance (AXO). These include former military testing areas and a former shooting range.⁴ Azerbaijan is also contaminated with landmines, the extent of which is unknown (see Mine Action Review's *Clearing the Mines 2020* report on Azerbaijan for further information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Azerbaijan National Agency for Mine Action (ANAMA), which functions as both the national mine action authority and mine action centre, was established by presidential decree to plan, coordinate, manage, and monitor mine action. It also conducts demining, along with two national operators it contracts: Dayag-Relief Azerbaijan (RA) and the International Eurasia Press Fund (IEPF). No commercial company is active in mine action in Azerbaijan.⁵ In March 2020, the mine action programme was restructured and RA's field personnel were incorporated within ANAMA while RA as an organisation will continue to provide logistical support to ANAMA.⁶

The United Nations Development Programme (UNDP) provides capacity development to ANAMA and was planning to do so until December 2020.⁷ As at July 2020, ANAMA and UNDP were discussing the possibility of extending the project until 2023.⁸

As at June 2020, Azerbaijan was still in the process of adopting a national mine action law, with draft legislation under review by the Cabinet of Ministers.⁹ The process has been ongoing for six years already. Once adopted, it will regulate mine action in Azerbaijan, governing issues such as licensing, accreditation, quality assurance (QA), and tender procedures.¹⁰

The Azerbaijani government funds 90% of ANAMA's operating costs and 90% of all survey and clearance in Azerbaijan.¹¹

GENDER AND DIVERSITY

ANAMA does not have a gender policy. No women are working in any operational roles in survey and clearance in Azerbaijan. In 2019, however, women made up 11% of mine action programme staff, mainly through administrative roles in ANAMA. They also participate in mine risk education sessions and are consulted during survey.¹² One of the goals of the UNDP-ANAMA capacity strengthening project is to introduce a gender-sensitive approach to mine action to Azerbaijan.¹³

INFORMATION MANAGEMENT AND REPORTING

ANAMA uses an old version of the Information Management System for Mine Action (IMSMA) database, and was working with the Geneva International Centre for Humanitarian Demining (GICHD) to upgrade to the latest IMSMA Core in 2019–20.¹⁴

PLANNING AND TASKING

The existing mine action strategy was for 2013–18.¹⁵ Its main aims were said to be to continue mine and ERW clearance in support of government development projects and to provide safe conditions for the local population in affected regions.¹⁶ The strategy has not yet been replaced though in June 2020, ANAMA reported that a new strategy was in the process of being developed.¹⁷ In the absence of a new multiyear strategic plan, tasks are prioritised according to the state development plan and instructions from the government.¹⁸

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Azerbaijan has its own National Mine Action Standards (NMAS), which were adopted in 2001 and subsequently revised in 2003, 2004, and 2010 in accordance with the International Mine Action Standards (IMAS) and best practice.¹⁹ No major modifications to the standards were made in 2019.²⁰

OPERATORS AND OPERATIONAL TOOLS

In 2019, the Azerbaijan mine action programme had more than 300 deminers/explosive ordnance disposal (EOD) personnel as well as mine detection dogs and machines. In addition, to its clearance capacities ANAMA deployed five technical survey teams in 2019 totalling 45 personnel.²¹ Mine detection dogs (MDDs) and mechanical assets are used to support reduction through technical survey and manual clearance operations.²²

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

No CMR survey or clearance took place in 2019. Some battle area clearance (BAC) took place in the region of Garadagh with 17,744m² cleared and 517 items of UXO found and destroyed.

No target date has been set for the completion of CMR clearance in Azerbaijan.²³ ANAMA's long-term strategy is to be ready to start clearance of the occupied territories as and when this is possible.²⁴ In May 2019, Azerbaijan stated that it will only accede to the CCM once all of its territories are liberated from occupation by Armenia and all internally displaced persons and refugees return to their lands.²⁵

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- 1 Emails from Sabina Sarkarova, Public Relations Officer, Azerbaijan National Agency for Mine Action (ANAMA), 2 April 2019; and Nijat Karimov, Senior Planning and Development Officer, ANAMA, 30 July 2020.
 - 2 Emails from Amasia Zargarian, Programme Support Officer, HALO Trust, 4 May 2018; and Asqanaz Hambardzumyan, HALO Trust, 26 April 2019.
 - 3 Reuters, "Shelling between Azerbaijan and Armenia smashes brief ceasefire", 16 July 2020, at: [reut.rs/3ijBoyG](https://www.reuters.com/article/3ijBoyG); Aljazeera, "Will Armenia and Azerbaijan go to war again?", 16 July 2020.
 - 4 ANAMA, "Azerbaijan National Agency for Mine Action 2018", p. 17.
 - 5 Emails from Tural Mammadov, Operations Officer, ANAMA, 19 October 2016; and Sabina Sarkarova, ANAMA, 8 June 2020.
 - 6 Email from Nijat Karimov, Senior Planning and Development Officer, ANAMA, 28 July 2020.
 - 7 UNDP, "Review & Recommendation to Azerbaijan National Agency for Mine Action (ANAMA) in Support of its Transformation into International Centre for Demining assessment 2018", 17 July 2018.
 - 8 Email from Nijat Karimov, ANAMA, 28 July 2020.
 - 9 Email from Sabina Sarkarova, ANAMA, 8 June 2020.
 - 10 Email from Parviz Gidayev, ANAMA, 20 May 2015; and ANAMA, "Azerbaijan National Agency for Mine Action 2014".
 - 11 Email from Sabina Sarkarova, ANAMA, 2 April 2019.
 - 12 Emails from Sabina Sarkarova, ANAMA, 2 April 2019 and 8 June 2020.
 - 13 UNDP, "Review & Recommendation to Azerbaijan National Agency for Mine Action (ANAMA) in Support of its Transformation into International Centre for Demining assessment 2018", 17 July 2018.
 - 14 Email from Maria Gurova, Programme Officer, GICHD, 22 August 2019.
 - 15 Email from Parviz Gidayev, Planning & Development Manager, ANAMA, 20 May 2015; and ANAMA, "Azerbaijan National Agency for Mine Action 2017", p. 10.
 - 16 Email from Sabina Sarkarova, ANAMA 2 May 2018.
 - 17 Email from Sabina Sarkarova, ANAMA, 8 June 2020.
 - 18 Emails from Sabina Sarkarova, ANAMA, 2 April 2019 and 8 June 2020.
 - 19 Email from Tural Mammadov, ANAMA, 19 October 2016.
 - 20 Email from Sabina Sarkarova, ANAMA, 8 June 2020.
 - 21 Ibid.
 - 22 Email from Sabina Sarkarova, ANAMA, 2 April 2019.
 - 23 Email from Sabina Sarkarova, ANAMA, 8 June 2020.
 - 24 ANAMA, "Azerbaijan National Agency for Mine Action 2014"; and GICHD, "Transitioning Mine Action Programmes to National Ownership: Azerbaijan", March 2012, Executive Summary.
 - 25 Email from Sabina Sarkarova, ANAMA, 21 May 2019.

RECOMMENDATIONS FOR ACTION

- Cambodia should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Cambodia should apply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- Cambodia should more accurately establish the extent of CMR contamination, through completion of the national baseline survey (BLS) and through further systematic and comprehensive evidence-based survey of suspected hazardous areas (SHAs) generated by the BLS.
- The Cambodian Mine Action and Victim Assistance Authority (CMAA) should work with operators to elaborate a specific strategy for survey and clearance of CMR, with realistic annual targets for land release and an accompanying resource mobilisation plan.
- The CMAA should improve CMR planning and prioritisation guidelines and implement a more targeted and systematic clearance prioritisation process for confirmed hazardous areas (CHAs).
- The CMAA should review existing national standards on CMR clearance.
- The CMAA should continue to work to establish an up-to-date and accurate national database that is open to all mine action stakeholders.

UNDERSTANDING OF AP MINE CONTAMINATION

CMR resulted from intensive bombing by the United States during the Vietnam War, concentrated in north-eastern provinces along the borders with the Lao People's Democratic Republic and Vietnam. The US Air Force dropped at least 26 million explosive submunitions, between 1.9 million and 5.8 million of which are estimated to have not exploded.¹

Cambodia has extensive CMR contamination but the full extent is not known. As the end of 2019, CMR contamination was estimated at over 716km² across 18 provinces: 1,748 SHAs totalling more than 638.5km² and 374 CHAs totalling more than 77.5km² (see Table 1).² Cambodia's National Mine Action Strategy 2018–2025 stated that known CMR contamination covers 645km²,³ and the estimate at the end of 2018 had risen to 738km² as progress in the BLS continued.⁴ A large proportion of the CMR contamination is located in the eastern provinces close to the border with Vietnam.⁵

The BLS was implemented between 2009 and 2012 across 124 districts. In 2015, the CMAA introduced the land reclamation non-technical survey and baseline survey (LRNTS+BLS) methodology, a stand-alone process to re-survey or re-verify SHAs identified during the BLS. The re-survey/re-verification efforts, which are nearly complete, have helped more accurately define the extent of remaining mine contamination and cancel those areas currently on the database that are found to have no evidence of mine contamination and/or which meet the CMAA criteria for reclamation.⁶ Fifty-three districts were surveyed in 2019 and as at end of 2019 only nine districts in one province remained to be surveyed.⁷ The re-survey was expected to be concluded by the end of the year.⁸ The majority of the remaining districts are in the eastern and southern parts of the country.⁹

In the eight provinces in the east and north-east of Cambodia, where most of the CMR are concentrated, the Norwegian People's Aid (NPA)/Cambodian Mine Action Centre (CMAC) partnership project had completed the BLS in seven eastern provinces (Kampong Cham, Kratié, Modulkiri, Ratanakiri, Stung Treng, Svay Rieng, and Tboung Khmum) and the resulting BLS reports were in the process of being added to the national database. The NPA/CMAC project had aimed to complete the BLS in Prey Vang province by the end of 2020, but the impact of COVID-19 has meant that it will not be completed before the end of February 2021.¹⁰

Furthermore, the BLS historically employed a landmine survey methodology. Non-technical survey applied during the BLS was sometimes limited in scope and therefore failed to comprehensively or accurately take into consideration all CMR evidence. Empirical evidence of the inaccuracy of SHA polygons generated from the BLS has been demonstrated in a number of instances during subsequent clearance of BLS-generated polygons. The BLS often resulted in inflated polygons, containing large amounts of uncontaminated land. In other cases, the polygons cleared are far larger than the original SHA polygons recorded during BLS. Furthermore, there are numerous examples of explosive ordnance disposal (EOD) reports of CMR in Ratanakiri province in areas already surveyed as part of the BLS and in which no SHAs were generated as part of the BLS process.¹¹

NPA emphasised that as the BLS only generates SHAs, extensive technical survey will be required in all eastern provinces to more accurately determine the extent and location of CMR contamination and to identify CHAs for clearance.¹² Similarly, Mines Advisory Group (MAG) believes that a more comprehensive and systematic survey, appropriate to CMR and incorporating best practice from across the region, is required to better determine the scale of the CMR problem. Any such process should use the data generated through the BLS as a point of departure and must be evidence-based.¹³ Standards for Cluster Munition Remnants Survey (CMRS) methodology in Cambodia were endorsed in November 2019 and applied from the start of January 2020.

A backlog of CMAC data for entry into the national database has also impacted the results of the BLS, but is in the process of being resolved. CMAC, with support from NPA, is working to upload over 5,000 records onto the national database. As at July 2019, a total of 86% of the backlog had been uploaded and efforts were ongoing in 2020. The remaining records are EOD tasks conducted by CMAC in eastern Cambodia that are missing supporting documentation. CMAC and CMAA are in the process of working out how this data will be reported and entered.¹⁴

Table 1: Cluster munition-contaminated area by province (at end 2019)¹⁵

Province	CHA	Area (m ²)	SHA	Area (m ²)
Battambang	0	0	1	26,872
Kampong Cham	34	5,795,141	216	44,378,487
Kampong Chhnang	0	0	22	3,515,933
Kampong Speu	0	0	85	12,366,578
Kampong Thom	0	0	341	59,063,686
Kampot	0	0	2	103,392
Kandal	0	0	56	5,525,570
Kratié	93	25,939,397	161	55,150,986
Monduliri	0	0	37	19,851,804
Phnom Penh	0	0	17	1,512,696
Preah Sihanouk	0	0	14	2,984,350
Preah Vihear	0	0	45	177,054,294
Prey Veng	34	6,665,072	82	16,393,245
Ratanakiri	70	10,131,073	187	49,447,318
Stung Treng	20	3,860,097	170	126,764,747
Svay Rieng	38	7,788,260	178	42,132,121
Takeo	0	0	10	1,973,835
Tboung Khmum	85	17,361,723	124	20,264,446
Totals	374	77,540,763	1,748	638,510,360

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Cambodia estimated that in 2018 it had around 468km² of ERW contamination apart from CMR.¹⁶ ERW contamination, including air-dropped bombs and ground artillery, is heaviest in the eastern provinces. Cambodia also has an estimated 817km² of anti-personnel mine contamination concentrated in, though not limited to, west and north-west Cambodia (see Mine Action Review's *Clearing the Mines 2020* report on Cambodia for further information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The CMAA was established by royal decree in 2000 with the mandate to regulate, monitor and coordinate the mine action sector in Cambodia.¹⁷ It has been reported that the CMAA has strengthened over the recent years, with roles and responsibilities more clearly defined.¹⁸ The Cambodian Mine Action Centre (CMAC) was established in 1992. Before the existence of the CMAA, CMAC had the responsibilities to regulate and coordinate the sector as well as undertake clearance. Since 2000, CMAC's activities have been limited to conducting demining, risk education, and training.¹⁹ CMAC

conducts both humanitarian and commercial survey and clearance in Cambodia and is the country's largest mine action operator.²⁰

Provincial Mine Action Committees (PMACs) and Mine Action Planning Units (MAPUs) were established in 2004, tasked with establishing clearance priorities in consultation with affected communities to ensure that clearance addresses their housing, agricultural, and infrastructure needs.²¹ MAPU planning and prioritisation units meet regularly with all mine action operators to plan annual mine action activities.²²

The Cambodian government established the Technical Working Group on Mine Action (TWG-MA) as a consultative mechanism between the government and implementing partners.²³ It meets on a bi-annual basis and is attended by the CMAA, relevant ministries, operators, and donors.²⁴ The Mine Action Coordination Committee (MACC) and several Technical Reference Groups (TRGs) have been established by the CMAA to facilitate coordination and feedback at a strategic and technical level in areas such as survey and clearance, risk education, victim assistance, information management, gender, and capacity development.²⁵ The TRG on survey and clearance meets on a quarterly basis.²⁶ During a TRG meeting in March 2020, clearance operators proposed the creation of a separate TRG for the survey and clearance of CMR, which was agreed by the CMAA.²⁷ The CMAA subsequently established a TRG on CMR survey and clearance to share best practice among operators and address challenges related to the CMRS process. The first meeting of the newly formed TRG was scheduled for October 2020.²⁸

The operating environment in Cambodia is permissive, with the Cambodian government open to the presence of international operators and supportive in administrative actions such as the granting of visas, approval of Memoranda of Understanding (MoUs), and importation procedures. The CMAA is open to the trialling and use of innovative clearance methods and tools to improve efficiency.²⁹

The UN Development Programme (UNDP), NPA, and the Geneva International Centre for Humanitarian Demining (GICHD) all support capacity development of the CMAA. NPA, as part of a United Kingdom Department for International Development (DFID)-funded partnership that includes MAG and The HALO Trust, focuses on information management, planning and prioritisation, gender mainstreaming, quality management, and strategic planning.³⁰

The GICHD provides information management and risk management support to the CMAA. In 2019, GICHD support to capacity development included stakeholder workshops on the IMSMA Core migration; initial development of the new database; support on developing residual capacity in line with Cambodia's mine action strategy; and workshops on risk management and national mine action standard (NMAAS) development.³¹

The Cambodian government contributes funding towards clearance and the management of the sector,³² which includes covering expenses of the CMAA in 2019 and providing funds to support planning and prioritisation, quality assurance/quality control (QA/QC), database management, Cambodia mine victim information service (CMVIS), and risk education activities.³³ The cost of the database unit is, however, shared by NPA and UNDP.³⁴ The Cambodian government also provides a 10% in-kind contribution to any new donor funding.³⁵ From 2010 to 2018, the Cambodian government has reported contributing just under 30% of the total funding to the mine action sector (US\$99.49 million of US\$340.2 million).³⁶ Cambodia funds mine and ERW clearance by CMAC and the National Centre for Peacekeeping Forces Management, Mines and Explosive Remnants of War Clearance (NPMEC) in support of infrastructure development.³⁷ Indirectly, tax exemptions on mine action equipment have contributed to humanitarian demining.³⁸ Cambodia has reported that it will need an estimated \$118.9 million for CMR clearance in 2020–25.³⁹

Cambodia is not yet a State Party to the CCM but made accession by 2020 a goal of the National Mine Action Strategy 2018–2025.⁴⁰ In April 2019, the CMAA stated that the Cambodian government was ready to accede to the CCM, but “for security reasons” is not willing to do so until other countries in the region also accede.⁴¹

GENDER AND DIVERSITY

The CMAA has developed a Gender Mainstreaming in Mine Action Plan (GMAP 2018–2022), an objective of the National Mine Action Strategy 2018–2025, which consists of six goals. These include:

- Preparation of guidelines to aid gender mainstreaming across all mine action
- Capacity building of relevant stakeholders to implement the GMAP 2018–2022
- Female representation and participation in planning and prioritisation, risk education, and in mine action and advocacy at all levels.

The Three-Year Implementation Plan 2018–2020 sets out activities in support of these goals.⁴² NPA, as part of its capacity development, is supporting the CMAA with training on gender mainstreaming in mine action, on implementation of the GMAP 2018–22 and the development of associated guidelines, and on how to use gender- and age-disaggregated data in planning and prioritisation processes.⁴³ Guidelines for gender mainstreaming in mine action were approved in December 2019. Trainings were provided to MAPU and quality management team (QMT) staff on the new guidelines, as well as on implementation of the GMAP 2018–22.⁴⁴ Sex and age disaggregated data (SADD) has been integrated in all reporting forms, which can help inform planning, prioritisation, risk education, and advocacy.⁴⁵ Furthermore,

the GICHD conducted a gender and diversity baseline assessment of the CMAA in 2019 and has a joint action plan to support gender and diversity mainstreaming efforts for the remainder of the GMMAP strategy period.⁴⁶

A CMAA Gender Mainstreaming Team (GMT) was established to coordinate with the TRG on Gender (TRGG), one of five TRGs ensuring coordination of the sector. The TRGG is composed of representatives from UNDP, Ministry of Women's Affairs (MoWA), Ministry of Social Affairs, Veterans and Youth Rehabilitation (MoSVY), MAPU, operators, and international and national organisations working in mine risk education (MRE) and victim assistance (VA).⁴⁷ Of CMAA's employees, 23% are female, but only 5% of managerial/supervisory level positions are held by women. Overall in the mine action sector in Cambodia, 876 (25%) of the 3,446 staff are female, an increase from the 15% of women staff in 2015.⁴⁸

Survey and community liaison teams are said to be inclusive and mixed gender. Women are given access to job announcements and female candidates are given priority during the recruitment process. Women and children in affected communities are consulted during village meetings and community liaison activities, including regarding prioritisation. This commitment is reinforced by the demand for all reporting forms to have SADD and by the provision of training to MAPU and QMT staff.⁴⁹

CMAC says it provides equal employment opportunities to both men and women. As at May 2020, women made up 12.5% of CMAC's workforce. CMAC operates in accordance with Cambodian Labour Law and is actively recruiting women to reach 15% female employment. Women currently work across all levels of the organisation, including in managerial level/supervisory positions. Two of the six directors were women.⁵⁰

During non-technical survey and pre-clearance impact assessments, MAG deploys mixed-gender community liaison teams to gather information on the suspected location of mines and the impact on the community. In its survey and clearance teams, 42% of staff are women as are 24% of their managerial level/supervisory positions.⁵¹ MAG planned to conduct a detailed gender analysis in 2020, at both the programming and organisational level, in order to promote meaningful gender equity and mainstreaming, and ensure an increased proportion of women in operational supervisory and management roles within the programme.⁵²

NPA takes the needs of women and children in communities affected by CMR-contaminated areas, into account in the prioritisation, planning, and tasking of its survey and clearance activities. It is working towards achieving gender equality in Cambodia both in the composition of its survey and clearance teams and in the consultation of all groups affected by CMR contamination.⁵³ Overall, 53% of NPA's employees in Cambodia are women, including 60% of operational staff and 65% of managerial level/supervisory positions.⁵⁴

According to CMAA data, as at March 2019, NPMEC had a total of 294 employees (290 operational), all of whom were men.⁵⁵

All international operators in Cambodia disaggregate relevant mine action data by gender and age.

INFORMATION MANAGEMENT AND REPORTING

The CMAA upgraded to the Information Management System for Mine Action New Generation (IMSMA NG) in 2014. As at June 2020, the CMAA was in the process of upgrading its information management system to IMSMA Core.⁵⁶ As part of this process, a significant backlog of data was resolved in 2019/20, before migration of existing data to IMSMA Core could begin in earnest. International Mine Action Standards (IMAS) minimum data requirements will be incorporated as Cambodia migrates to IMSMA Core.⁵⁷

The CMAA's database unit (DBU) is responsible for collecting, storing, analysing and disseminating data in support of planning and prioritisation.⁵⁸ Improvements to information management are ongoing in Cambodia,⁵⁹ and include the development of tools to allow for mobile data collection in the field and which allow MAPUs and QMTs to make online data entries and verify data submitted by operators.⁶⁰

Strengthening the national information management system for mine action is an objective of the National Mine Action Strategy 2018–25.⁶¹ NPA has been conducting capacity development activities with the CMAA under a DFID consortium project.⁶² This included introduction of a web-based application for MAPUs to enable better prioritisation of the tasks for operators' annual work-plans, which is expected to increase the effectiveness of mine clearance across the sector in Cambodia.⁶³ It also included the development of an NMAS on information management. Regular TRG meetings are held with operators to share progress and challenges.⁶⁴ As part of an information management capacity assessment of the CMAA's DBU, operators (CMAC, HALO, and MAG) agreed that data collection forms are consistent.⁶⁵

The CMAA shares all available data with operators on a monthly basis. In 2018, the DBU set up a virtual private network (VPN), which allows operators to send their daily data input directly into the DBU IMSMA database. The DBU controls the quality of all submitted reports and approves them via this online network.⁶⁶ According to non-governmental organisation (NGO) operators, the CMAA has issued clear directives on the submission of data via VPN into the CMAA IMSMA system.⁶⁷

CMAA have introduced a new reporting form following the endorsement of the national standard on CMRS in November 2018.⁶⁸ The new reporting form, the CMTS, in conjunction with the standard, should aid the improvement of both the effectiveness of the CMRS and the reporting of the survey results to the national database.⁶⁹

Between August and December 2019, NPA/CMAC deployed 11 BLS teams in the eastern provinces, creating a huge number of records. Due to lack of capacity, there had been a delay in entry of the BLS reports into the national database, but NPA confirmed in September 2020 that the backlog of 2019 had been resolved and data entry of records for 2020 was ongoing.⁷⁰

As mentioned previously, issues remain with the accuracy of historical information on CMR contamination data, collected under the BLS.⁷¹

PLANNING AND TASKING

Cambodia's National Mine Action Strategy 2018–2025 was officially launched in May 2018 with eight goals for clearance of mines, CMR, and other ERW. It includes targets for tackling CMR contamination as the second of its eight goals. It called for "release of prioritised cluster munition-contaminated areas of 43.4km² of total 130.2km² by 2025" and specified two CMR-related objectives:⁷²

- Plan and prioritise CMR-contaminated areas to be released
- Conduct survey and release confirmed areas of CMR contamination, develop national standards for survey and clearance, implement the CMRS methodology and increase survey and clearance capacity.

The accompanying Three-Year Implementation Plan 2018–20 sets out the activities and indicators that will need to be completed in order to meet these goals and objectives. This includes the development of the planning and prioritisation guidelines on CMR which were finalised by the CMAA in 2018, although according to operators, they lack clarity and are not systematically applied.⁷³

Since March 2018, the CMAA, NPA, and CMAC have been working together as part of a United States (US)-funded project to define and draft a comprehensive plan, that references the Cambodian National Mine Action Strategy 2018–2025, to make eight targeted provinces in eastern Cambodia free from the humanitarian impact of ERW, including CMR.⁷⁴ The significant deployment of BLS teams in 2019 and early 2020 was expected to contribute to more accurate data on the scope of CMR contamination and to inform the third draft of the work plan.⁷⁵ The third work plan was elaborated in July 2020, with a long-term objective of reducing the effects of landmines, CMR, and other ERW to a level requiring a reactive response capacity only. Specific objectives include resolving data backlogs; completing the BLS in districts allocated by the CMAA to CMAC/NPA; capacity building of CMAC staff to conduct

updated CMRS methodology and conduct CMRS in target provinces; and to release prioritised CMR-contaminated areas.⁷⁶

The CMAA maintains the annual national clearance work plan made up of all the provincial clearance work plans. MAPUs are responsible for developing their own work plans in accordance with the planning and prioritisation guidelines. The PMACs approve the MAPU's work plans, which are then endorsed by the CMAA. The MAPUs use the provincial work plan to monitor clearance performance and report progress to the PMAC and the CMAA.⁷⁷

The current planning and prioritisation practices in Cambodia follow a combination of top-down and bottom-up approaches. The top-down approach involves CMAA establishing a list of priority villages based on agreed criteria. The bottom-up approach involves MAPUs coordinating at the provincial level to develop a clearance list, again, using agreed criteria.⁷⁸

However, the prioritisation process for the selection of CMR tasks is not as well established as the prioritisation process for mined areas, largely due to the absence of comprehensive, verifiable CMR data. Task prioritisation begins with the MAPU as part of the annual work plan development process. Although the exact prioritisation criteria are not as well defined for CMR clearance as they are for landmine clearance, the process typically works as follows: consultation with village leaders > commune workshop > SHA reconnaissance > SHA prioritisation > district workshop > provincial workshop > work plan finalisation.⁷⁹ The end use for most clearance tasks is agriculture and often the land is already being cultivated regardless of CMR contamination. This makes it difficult to produce clear prioritisation criteria, so the survey and the clearance plan is based on village-by-village, commune-by-commune, and district-by-district approaches.⁸⁰

According to NGO operators, survey and clearance task dossiers are issued in a timely and effective manner.⁸¹

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Mine action is conducted according to Cambodian Mine Action Standards (CMAS), which are broadly consistent with IMAS and enable evidence-based land release efforts and do not impede any activities.⁸²

The CMAA approved the CMRS methodology in principle in 2017 and signed a national mine action standard for CMRS (CMAS-16) in November 2018, which is being implemented by operators.⁸³ CMAS-16 is based on the experience of other programmes implementing the CMRS method across the region. Implementation of CMAS-16 began in January 2019 and is ongoing.

The CMAA has agreed that operators can apply evidence-based technical survey to SHA polygons generated through the BLS, which are often inflated, in order to reduce the area and ensure a more efficient use of resources.⁸⁴ Previously, operators were expected to fully clear the entire BLS polygon regardless of whether technical survey had defined a much smaller CHA within the original SHA. The CMRS methodologies were to be further discussed

during a US-funded regional CMRS workshop in August 2019.⁸⁵ The CMAA said that while no changes were made to CMRS methodology in 2019, it will consider reviewing methodology.⁸⁶ It is expected that further modifications to standards and methodology relating to CMR will be discussed through the CMR-specific TRG on survey and clearance.⁸⁷

In 2019–21, the CMAA, with support from NPA with DFID funding and in consultation with other mine clearance operators, is in the process of developing new standards.⁸⁸ New standards on animal detection, mechanical demining, information management, and the environment were elaborated in 2019,⁸⁹ although final copies of all standards had not yet been shared with operators as at April 2020.⁹⁰ National standards on explosive ordnance risk education (EORE), accreditation of demining organisations and licensing of operations and on the monitoring of demining organisations were still in progress as at June 2020,⁹¹ as well as planned review of the BLS and land release chapters in 2021–22.⁹²

National standards are reflected in operators' standing operating procedures (SOPs).⁹³ Updates to the SOPs are conducted as and when required, such as when a need is identified through the CMAA-led TRG which has been the case for standards relating to landmines and is expected to be the case also for those relating to CMR. Reviews are conducted in consultation with all operators, and against IMAS and best practice.⁹⁴ A comprehensive review of CMAS in 2020 was mooted; this was also referenced in the National Strategy.⁹⁵

OPERATORS AND OPERATIONAL TOOLS

CMR clearance in 2019 was undertaken by national operators, CMAC and Cambodian Self-help Demining (CSHD), and international operators MAG and NPA (see Table 2).

Table 2: Operational CMR clearance capacities deployed in 2019⁹⁶

Operator	Manual teams	Total clearance personnel	Animal detection capacity	Machines	Comments
CMAC	12	100	4 dogs (10 handlers)	1	
CSHD	1	15	0	0	
MAG	5	47	0	0	Excludes one team leader, one deputy team leader, and one medic per team, plus operational supervisory/ managerial staff. Excludes MAG's roving EOD capacity.
NPA	2	5	4	0	Two manual teams of five staff, with two explosive detection dogs (EDDs) in each team.
Totals	20	167	8 dogs	1	

With regard to survey capacity, CMAC had 11 non-technical survey teams, totalling 44 survey personnel and four technical survey teams totalling 16 personnel;⁹⁷ MAG had two non-technical survey teams, totalling four survey personnel and one technical survey team, of ten survey personnel;⁹⁸ and NPA had one non-technical survey team, with four survey personnel and two technical survey teams, totalling eight survey personnel.⁹⁹

NPA and CMAC have an ongoing CMR survey and clearance partnership project in eastern Cambodia targeting the seven provinces in the east of the country (Kampong Cham, Tbong Khmum, Pre Veng, Svay Rieng, Kratie, Stung Treng and Modulkiri) which are believed to account for most of the CMR contamination. Under this project CMAC Demining Unit 5 (DU5) teams conduct CMRS and clearance while NPA is providing mentoring and monitoring of all aspects of the project. In addition, CMAC conducts EOD with one team based in Takeo province (mainly working around Takeo and Kandal provinces around Phnom Penh, but sometimes further afield). CMAC's DU5 (191 CMAC staff) has been fully supported by NPA since 2014 with funding from the United States.¹⁰⁰ The objectives of the project were to resolve the CMAC data backlog, complete baseline survey in the remaining districts allocated to NPA/CMAC, develop the capacity of CMAC staff to conduct CMRS in the targeted provinces, and to release prioritised CMR contaminated areas in the targeted provinces.¹⁰¹

In 2018, with regard to both mine and ERW survey capacity, CMAC deployed 25 non-technical survey personnel across five teams, but there had been no plans to deploy non-technical survey teams in 2019. CMAC also deployed

a total of 202 technical survey personnel across 30 teams of between five and seven staff each. In 2019, the number of technical survey personnel was due to increase to 231 across 37 teams.¹⁰² CMAC also employs explosive detection dogs as the primary clearance tool for CMR-contaminated areas while machines provide support for field preparation and brush-cutting. In 2019, a pilot was planned for dogs to also conduct CMRS,¹⁰³ but no data were made available on whether CMAC conducted the pilot. Data on CMAC's capacity in 2019 was not provided upon request.

As well as having its main operational base in the west of the country focused on minefield survey and clearance, MAG also has an operations base in Ratanakiri province concentrating on CMR survey and clearance. MAG uses the data from EOD tasks to plot initial CHAs using its Evidence Point Polygon (EPP) mapping approach pioneered in the Lao People's Democratic Republic.¹⁰⁴ MAG also continues to trial advanced detection systems for CMR survey and clearance, provided by the US Humanitarian Demining Research and Development programme, and uses drones to conduct non-technical survey, task planning, and post-impact monitoring.¹⁰⁵

NPA conducted a successful trial of explosive detection dogs (EDDs) for technical survey in 2018, and did not deploy EDDs for technical survey of CMR in 2019.¹⁰⁶ NPA deploys drones for aerial mapping of both technical survey and BAC tasks. Drones are also used during EOD tasks and for quality assurance. NPA has also been conducting field tests of all-terrain vehicles (ATVs) and have found them particularly useful in transporting personnel and EDDs in hard to reach areas.¹⁰⁷

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2019

Based on data provided by the CMAA, in 2019, clearance operators in Cambodia cleared a total of over 25.2km² of CMR-contaminated area, destroying 5,749 submunitions in the process. A further 2,718 submunitions were destroyed during EOD spot tasks.

A total of more than 33.3km² was confirmed by operators through technical survey in 2019, while nearly 4.5km² was reduced from the baseline survey through technical survey.

SURVEY IN 2019

In 2019, CMAC, MAG, and NPA confirmed nearly 33.32km² as containing CMR (see Table 4), an increase on the 26.5km² of CMR-contamination confirmed through technical survey in 2018. In addition, almost 4.48km² of CMR-contaminated area was reduced through technical survey, primarily by CMAC (see Table 3). This represents a decrease compared to 2018, when 8.2km² was reduced.

MAG surveyed significantly more CMR-suspected area in 2019, compared to 2018, due to a dedicated CMRS team established in October 2018.¹⁰⁸

CLEARANCE IN 2019

In 2019, more than 25.23km² of CMR-contaminated area was cleared by CMAC, CSHD, MAG, and NPA (see Table 5). This is a marked reduction on the equivalent 39.6km² cleared in 2018. According to the CMAA, several reasons help to explain for the decrease in the amount of land released in 2019 compared to the previous year. These include the lack of area meeting the criteria for priority clearance; high mineral content, as well as high degrees of clutter and complexity in clearance tasks; training to enhance staff capacity; and considerable movement between task sites.¹⁰⁹ These raise considerable concern about priority setting and tasking in Cambodia.

Table 3: CMAA data on area of CMR-contaminated area reduced through technical survey in 2019^{110*}

Operator	Area reduced from BLS (m ²)
NPA	75,171
MAG	203,367
CMAC	4,197,924
Totals	4,476,462

* Submunitions destroyed during technical survey are included in the clearance table.

Table 4: CMR-contaminated area surveyed and confirmed through technical survey in 2019^{111*}

Operator	Area surveyed (m ²)	Area confirmed (m ²)
CMAC	31,535,394	26,760,654
MAG	1,237,512	1,703,155
NPA	6,010,000	4,855,536
Totals	38,782,906	33,319,345

* Submunitions destroyed during technical survey are included in the clearance table.

Table 5: CMR clearance in 2019¹¹²

Operator	Province	Area cleared (m ²)	Submunitions destroyed*	Other UXO destroyed
CMAC	Kampong Cham	4,065,186	1,197	131
CMAC	Kampong Thom	529,114	135	19
CMAC	Kratié	2,547,552	490	59
CMAC	Mondulkiri	1,183,111	280	16
CMAC	Prey Veng	2,922,381	425	230
CMAC	Stung Treng	2,100,097	461	2,565
CMAC	Svay Rieng	3,879,872	756	2,613
CMAC	Tboung Khmum	3,732,056	983	173
CSHD	Kampong Thom	576,778	90	56
MAG	Ratanakiri	2,655,961	551	10
NPA	Ratanakiri	1,039,494	381	1
Totals		25,231,602	5,749	5,873

* Includes submunitions destroyed during technical survey.

According to CMAA, during EOD spot tasks in 2019, a further 2,718 submunitions were destroyed: 261 by CMAC; 3 by CSHD; 2,147 by MAG; 252 by NPA; and 55 by the HALO Trust.¹¹³

MAG's clearance output increased in 2019, compared to the previous year, due to one additional clearance team deployed from late 2018.¹¹⁴ CMR were found in all MAG's clearance tasks completed through standard tasking processes. MAG also cleared five emergency tasks at the request of the government (4 x health centres, 1 x cemetery) where no items were found, with a total area of 59,794m².¹¹⁵

PROGRESS TOWARDS COMPLETION

Cambodia has committed to address 80% of the total known CMR contamination by 2025: 499km² of an estimated total of 645km² in the National Mine Action Strategy 2018–2025. The remaining 20% of CMR will be categorised as “residual” contamination and dealt with accordingly. To reach the clearance goal, Cambodia planned to release 62km² every year from 2018 to 2025, of which 30% would be through land reclamation/cancellation and the remaining 70% through land release methodology. Based on this analysis, Cambodia calculated that approximately 44km² will need to be released annually through technical survey and full clearance. From 2014 to 2016, Cambodia released an average of 11km² per year through technical survey and clearance, but it expected to achieve vastly increased clearance output through improved land release methodology, innovative technology, and animal detection systems.¹¹⁶

The implementation of CMRS should mean that operators are more effective in their approach and focus clearance on CHAs while reducing SHAs through technical survey. However, the CMAA will need to ensure that the standard is being applied consistently by all operators and in the most efficient and effective way possible.

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

Goal seven of Cambodia's National Mine Action Strategy 2018–2025 is to establish a sustainable national capacity to address residual threats after 2025. Reference to the issue is also included in the foreword signed by the Cambodian Prime Minister and noted throughout the document. Objectives include reviewing by 2020 the legal, institutional, and operational framework, strategy, and capacity needed to address the residual threats.¹¹⁷

In Phase I (2018–22) of the national strategy Cambodia planned to “develop a comprehensive residual threats strategy; establish a residual threat legal and institutional framework; and establish residual threats regulatory and operational frameworks including coordination, planning, and prioritisation, and sustained information management system”. In Phase II (2023–25), Cambodia plans to “develop residual threat capacity in preparation to transition from the traditional mine action program; determine resource mobilisation schemes to support the development of residual threat capacity and its future activities; and to conduct post-programme evaluation of achievements and outcomes after the conclusion of the strategy in 2025 to evaluate performance, lessons learned, recommendations for efficiencies and improvements in any remaining mine action”.¹¹⁸

In 2018, the GICHD presented a case study on the Management of Residual ERW in Cambodia, and hosted a Long-Term Risk Management workshop and an exchange visit between the CMAA and the national mine action centre in Sri Lanka.¹¹⁹

The CMAA has said it is likely that the Royal Cambodian Army will be tasked with addressing explosive threats after 2025.¹²⁰

Operators believe that the establishment of a residual-risk-management framework will be essential to define and manage the long-term risk posed by CMR.¹²¹

- 1 South East Asia Air Sortie Database, cited in D. McCracken, "National Explosive Remnants of War Study, Cambodia", NPA in collaboration with CMAA, Phnom Penh, March 2006, p. 15; Human Rights Watch, "Cluster Munitions in the Asia-Pacific Region", April 2008; and Handicap International (HI), *Fatal Footprint: The Global Human Impact of Cluster Munitions*, HI, Brussels, November 2006, p. 11.
- 2 Email from Ros Sophal, Database Unit Manager, on behalf of Prum Sophakmongkol, Director, CMAA, 6 September 2020.
- 3 CMAA, National Mine Action Strategy 2018–2025, p. 9.
- 4 Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, 27 March 2019, p. 36; and interview with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2019.
- 5 Email from CMAA, 22 May 2018.
- 6 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 21.
- 7 Emails from Prum Sophakmonkol, CMAA, 1 July 2020; and Ros Sophal, on behalf of Prum Sophakmongkol, 6 September 2020.
- 8 Email from Rebecca Letven, Country Director, MAG, 7 April 2020.
- 9 Email from Lasha Lomidze, Country Director, HALO Trust, 15 May 2020.
- 10 Emails from Zlatko Vezilic, Programme Manager, NPA, 19 March 2020; and Portia Stratton, Programme Manager, NPA, 4 September 2020.
- 11 Emails from Rebecca Letven, MAG, 7 April and 4 September 2020.
- 12 Email from Zlatko Vezilic, NPA, 19 March 2020.
- 13 Email from Rebecca Letven, MAG, 7 April 2020.
- 14 Emails from Zlatko Vezilic, NPA, 4 April, 25 June, 10 July 2019, and 19 March 2020; and interview with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2019.
- 15 Email from Ros Sophal, on behalf of Prum Sophakmongkol, CMAA, 6 September 2020.
- 16 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 6.
- 17 CMAA, "Legal framework and mandate", at: bit.ly/2W7r3dJ.
- 18 Interviews with Su Yeon Yang, and Tong Try, UNDP, 23 April 2019; and Rebecca Letven, MAG, Phnom Penh, 25 April 2019.
- 19 CMAC, "20 Years' Achievement in Mine Action 1998-2018 and Path Ahead", 2018.
- 20 Interview with Heng Rattana, Director General, CMAC, Phnom Penh, 25 April 2019.
- 21 GICHD, "Landmines and Land Rights in Cambodia", December 2010, pp. 9 and 13.
- 22 Email from Zlatko Vezilic, NPA, 5 May 2020.
- 23 CMAA, National Mine Action Strategy 2018–2025, p. 24; and email from Tong Try, UNDP, 18 June 2019.
- 24 Emails from Prum Sophakmonkol, CMAA, 1 July 2020; Rebecca Letven, MAG, 7 April 2020; and Zlatko Vezilic, NPA, 5 May 2020.
- 25 CMAA, National Mine Action Strategy 2018–2025, p. 24; and email from Tong Try, UNDP, 18 June 2019.
- 26 Email from Zlatko Vezilic, NPA, 5 May 2020.
- 27 Emails from Portia Stratton, NPA, 4 September 2020; and Ros Sophal, on behalf of Prum Sophakmongkol, CMAA, 6 September 2020.
- 28 Emails from Ros Sophal, CMAA, 25 September 2020; Rebecca Letven, MAG, 27 September 2020; and Rune Dale-Andresen, NPA, 29 September 2020.
- 29 Emails from Zlatko Vezilic, NPA, 4 April 2019; Rebecca Letven, MAG, 9 May and 28 June 2019; and Damian O'Brien, HALO Trust, 10 April 2019.
- 30 Email from Zlatko Vezilic, NPA, 4 April 2019.
- 31 Email from GICHD, 1 July 2020.
- 32 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 12.
- 33 Email from Prum Sophakmonkol, CMAA, 1 July 2020.
- 34 Email from Rune Dale-Andresen, Country Director, NPA, 26 September 2020.
- 35 Email from Ros Sophal, on behalf of Prum Sophakmongkol, CMAA, 6 September 2020.
- 36 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 6.
- 37 Email from Prum Sophakmonkol, CMAA, 1 July 2020.
- 38 Emails from Prum Sophakmonkol, CMAA, 11 September 2019; Rebecca Letven, MAG, 7 April 2020; and Lasha Lomidze, HALO Trust, 15 May 2020.
- 39 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 55.
- 40 National Mine Action Strategy 2018–2025, p. 13.
- 41 Interview with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2019.
- 42 CMAA, Three-Year Implementation Plan 2018–2020, Phnom Penh, undated but 2018, p. 14.
- 43 DFID Capacity Development Report, Activity Detail Extract, 18 September 2018.
- 44 Emails from Prum Sophakmonkol, CMAA, 1 July 2020; and Zlatko Vezilic, NPA, 19 March 2020.
- 45 Ibid.
- 46 Email from Arianna Calza Bini, Head of GMAP division, GICHD, 7 September 2020.
- 47 CMAA, National Mine Action Strategy 2018–2025, p. 22.
- 48 Email from Prum Sophakmonkol, CMAA, 1 July 2020.
- 49 Ibid.
- 50 CMAC, "20 Years' Achievement in Mine Action 1998-2018 and Path Ahead", 2018; interview with Heng Rattana, CMAC, Phnom Penh, 25 April 2019; and email from Oum Phumro, Deputy Director General, CMAC, 28 July 2020.
- 51 Email from Rebecca Letven, MAG, 7 April 2020.
- 52 Ibid.
- 53 Email from Zlatko Vezilic, NPA, 4 April 2019.
- 54 Email from Zlatko Vezilic, NPA, 19 March 2020.
- 55 APMBC Article 5 deadline Extension Request, Additional Information, undated but August 2019, Annex 18.
- 56 Emails from Prum Sophakmonkol, CMAA, 1 July 2020; and GICHD, 1 July 2020.
- 57 Email from GICHD, 1 July 2020.
- 58 CMAA, National Mine Action Strategy 2018–2025, p. 22.
- 59 Email from Zlatko Vezilic, NPA, 5 May 2020.
- 60 Email from Prum Sophakmonkol, CMAA, 1 July 2020.
- 61 CMAA, National Mine Action Strategy 2018–2025, pp. 14–15.
- 62 Emails from Rebecca Letven, MAG, 7 April 2020; and Lasha Lomidze, HALO Trust, 15 May 2020.
- 63 Email from Lasha Lomidze, HALO Trust, 15 May 2020.
- 64 Email from Rebecca Letven, MAG, 7 April 2020.
- 65 Email from Zlatko Vezilic, NPA, 5 May 2020.
- 66 Email from Rebecca Letven, MAG, 9 May 2019; and interview with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2019.
- 67 Email from Rebecca Letven, MAG, 7 April 2020.
- 68 Emails from Zlatko Vezilic, NPA, 4 April 2019; and Rebecca Letven, MAG, 9 May 2019.
- 69 Email from Zlatko Vezilic, NPA, 2 July 2019.
- 70 Emails from Zlatko Vezilic, NPA, 19 March 2020; and Portia Stratton, NPA, 4 September 2020.
- 71 Email from Rebecca Letven, MAG, 7 April 2020.
- 72 CMAA, National Mine Action Strategy 2018–2025, pp. 11–12.
- 73 Email from Rebecca Letven, MAG, 9 May 2019; and Skype interview with Fredrik Holmegaard, Operations Manager, NPA, 30 May 2019.
- 74 Email from Zlatko Vezilic, NPA, 25 June 2019.
- 75 Email from Zlatko Vezilic, NPA, 19 March 2020.
- 76 Email from Ros Sophal, on behalf of Prum Sophakmongkol, CMAA, 6 September 2020.
- 77 APMBC Article 5 Extension Request, 27 March 2019, p. 5.
- 78 Ibid., p. 8; and interviews with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2018; and Geneva, 11 February 2020.
- 79 Emails from Rebecca Letven, MAG, 7 April and 4 September 2020.
- 80 Email from Zlatko Vezilic, NPA, 4 April 2019.
- 81 Email from Rebecca Letven, MAG, 7 April 2020.
- 82 Emails from Rebecca Letven, MAG, 7 April 2020; and Zlatko Vezilic, NPA, 19 March 2020.
- 83 Emails from Ros Sophal, on behalf of Prum Sophakmongkol, CMAA, 6 September 2020; and Portia Stratton, NPA, 4 September 2020.
- 84 Email from Rebecca Letven, MAG, 9 May 2019.
- 85 Email from Rebecca Letven, MAG, 28 June 2019.
- 86 Email from Ros Sophal, on behalf of Prum Sophakmongkol, CMAA, 6 September 2020.
- 87 Email from Rebecca Letven, MAG, 4 September 2020.
- 88 Email from Prum Sophakmonkol, CMAA, 11 September 2019; and Zlatko Vezilic, NPA, 4 April 2019.
- 89 Emails from Zlatko Vezilic, NPA, 5 May 2020; and Lasha Lomidze, HALO Trust, 15 May 2020.
- 90 Emails from Rebecca Letven, MAG, 7 April and 4 September 2020.

- 91 APMBC Article 5 deadline Extension Request, Additional Information, undated but August 2019, p. 1; and email from Zlatko Vezilic, NPA, 5 May 2020.
- 92 APMBC Article 5 deadline Extension Request, Additional Information, undated but August 2019, p. 1.
- 93 Emails from Zlatko Vezilic, NPA, 4 April 2019 and Rebecca Letven, MAG, 7 April 2020.
- 94 Emails from Rebecca Letven, MAG, 9 May 2019 and 4 September 2020; and Damian O'Brien, HALO Trust, 10 April 2019.
- 95 Email from GICHD, 1 July 2020.
- 96 Emails from Rebecca Letven, MAG, 7 April 2020; Rune Dale-Andresen, NPA, 26 September 2020; and Ros Sophal, on behalf of Prum Sophakmongkol, CMAA, 6 September 2020.
- 97 Email from Ros Sophal, on behalf of Prum Sophakmongkol, CMAA, 6 September 2020.
- 98 Email from Rebecca Letven, MAG, 7 April 2020.
- 99 Email from Zlatko Vezilic, NPA, 19 March 2020.
- 100 Email from Rune Dale-Andresen, NPA, 29 September 2020.
- 101 Skype interview with Fredrik Holmegaard, NPA, 30 May 2019; and emails from Prum Suonpraseth, CMAC, 21 June 2019; and Zlatko Vezilic, NPA, 2 July 2019.
- 102 Email from Prum Suonpraseth, CMAC, 21 June 2019.
- 103 Ibid.
- 104 Emails from Rebecca Letven, MAG, 9 May and 28 June 2019; and 4 September 2020.
- 105 Emails from Rebecca Letven, MAG, 9 May 2019 and 4 September 2020.
- 106 Email from Portia Stratton, NPA, 4 September 2020.
- 107 Email from Zlatko Vezilic, NPA, 4 April 2019.
- 108 Email from Rebecca Letven, MAG, 7 April 2020.
- 109 Email from Ros Sophal, on behalf of Prum Sophakmongkol, CMAA, 6 September 2020.
- 110 Emails from Ros Sophal, on behalf of Prum Sophakmongkol, CMAA, 6 September 2020; and Zlatko Vezilic, NPA, 19 March 2020. There was a discrepancy in the CMAA's data on area reduced through technical survey for MAG compared to the 226,118m² reported by MAG. Email from Rebecca Letven, MAG, 7 April 2020.
- 111 Emails from Portia Stratton, NPA, 24 September 2020 and Rebecca Letven, MAG, 23 September 2020. Data for CMAC related to the NPA-CMAC/DU5 project in Kampong Cham, Kratié, Monduliri, Prey Veng, Stung Treng, Svay Rieng and Tboung Khmum provinces were provided by NPA. Additionally 136,461,126m² was identified as SHA through BLS deployment. Email from Rune Dale-Andresen, NPA, 29 September 2020.
- 112 Ibid. There was a discrepancy in the clearance data reported by MAG in comparison to the clearance data reported by the CMAA for MAG. MAG reported clearing 2,604,732m², with the destruction of 366 submunitions and 1 other item of UXO during clearance and a further 114 submunitions and 40 items of UXO during technical survey. Emails from Rebecca Letven, MAG, 7 April and 7 and 23 September 2020. While the CMAA and NPA reported the same size of area cleared during 2019, NPA reported destroying 641 submunitions and 1 other item of UXO during clearance and a further 218 submunitions and 258 other items of UXO during technical survey. Emails from Portia Stratton, NPA, 24 September 2020; and Portia Stratton, NPA, 4 September 2020. There was also a discrepancy in the CMAC data related to the NPA-CMAC/DU5 project in Kampong Cham, Kratié, Monduliri, Prey Veng, Stung Treng, Svay Rieng and Tboung Khmum provinces provided by the CMAA (20,430,255m² cleared, with the destruction of 4,592 submunitions and 5,787 items of UXO) and the data for the NPA-CMAC/DU5 project provided by NPA directly (21,565,439m², with the destruction of 5,414 submunitions and 11,899 items of UXO). Email from Rune Dale-Andresen, NPA, 29 September 2020.
- 113 Email from Ros Sophal, on behalf of Prum Sophakmongkol, CMAA, 6 September 2020. There were discrepancies with EOD data as reported directly by MAG and NPA. MAG reported destroying 2,164 submunitions during spot tasks. Email from Rebecca Letven, MAG, 7 April 2020. NPA reported destruction of 40 submunitions. Emails from Zlatko Vezilic, NPA, 19 March 2020 and Portia Stratton, NPA, 24 September 2020.
- 114 Email from Rebecca Letven, MAG, 7 April 2020.
- 115 Ibid.
- 116 National Mine Action Strategy 2018–2025, pp. 9–10.
- 117 CMAA, National Mine Action Strategy 2018–2025, p. 14.
- 118 Ibid., p. 16.
- 119 Email from Rob White, Advisor, Strategic Management & Residual Contamination, GICHD, 3 July 2019.
- 120 APMBC Article 5 deadline Extension Request, Additional Information, undated but August 2019, p. 5.
- 121 Email from Rebecca Letven, MAG, 7 April 2020.

RECOMMENDATIONS FOR ACTION

- Georgia should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.

UNDERSTANDING OF AP MINE CONTAMINATION

Georgia is believed to be free of cluster munition remnants (CMR), with the possible exception of South Ossetia, which is occupied by Russia and inaccessible to both the Georgian authorities and international non-governmental organisation (NGO) demining operators.¹

CMR contamination in Georgia resulted from the conflict over South Ossetia in August 2008, in which both Georgian and Russian forces used cluster munitions. After the end of the conflict and through to December 2009, The HALO Trust cleared some 37km² of submunitions and other explosive remnants of war (ERW) in Georgian-controlled territory.² In May 2010, Norwegian People's Aid (NPA) completed clearance of its tasked areas.³ In 2016, two submunitions were reported in the Shida Kartli region and then destroyed by the State Security Agency, as part of explosive ordnance disposal (EOD) call-outs.⁴ In 2017, The HALO Trust conducted survey in the Shida Kartli region to investigate each of the call-outs.⁵ During survey, a three submunitions were found, which were identified as residual contamination and destroyed.⁶ One submunition was destroyed in 2019 (see Land Release Output section below).

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Georgia remains contaminated by other unexploded ordnance (UXO), likely in South Ossetia and also within Georgia in former firing ranges, and by anti-vehicle and anti-personnel mines (see Mine Action Review's *Clearing the Mines 2020* report on Georgia for further information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Humanitarian Demining Control Division (HDCD), renamed after a reorganisation in January 2019, sits under the State Military Scientific Technical Centre, known as DELTA, within the Ministry of Defence (MoD).⁷ The primary task of the HDCD is to coordinate mine action in Georgia. The Georgian government funds the running costs of the HDCD as well as the Engineering Brigade, which carries out some survey and battle area clearance (BAC).⁸ The HALO Trust is funded by international donors.

GENDER AND DIVERSITY

DELTA and The HALO Trust each have gender and diversity policies in place. HALO Trust supports use of mixed-gender teams to conduct survey, which allows for greater engagement with women and children.⁹ HALO Trust's EOD teams in Abkhazia are mixed ethnic Georgian and ethnic Abkhaz and comprise both men and women.¹⁰

There is equal access to employment for qualified women and men in survey and clearance teams in Georgia, including for managerial level/supervisory positions although proportionately the number of women remains low. In Abkhazia, The HALO Trust works with local women's organisations to increase the visibility of its work to a female audience. As at May 2020, 30% of its operational and management staff were female and at the end of 2019 the HALO Trust employed its first female BAC team leader.¹¹

INFORMATION MANAGEMENT AND REPORTING

The HDCD uses the Information Management System for Mine Action (IMSMA) database and, according to The HALO Trust, the data is accurate. Data archives go back to 2009 and are regularly updated, based on HALO Trust's operations reports and on work by the Engineering Brigade.¹² The data in the national information management system is accessible to the HALO Trust.¹³ HALO Trust uses its own IMSMA-compatible data collection forms that DELTA has approved while the HDCD quality assurance/quality control (QA/QC) team also have its own forms.¹⁴

PLANNING AND TASKING

Georgia has a national mine action strategy. Its main aims and targets are focused on clearing the remaining mined areas and other areas contaminated with ERW.¹⁵ The annual work plans for 2019 centred on BAC within the Tbilisi Administered Territory (TAT) does not include the autonomous republics of Abkhazia, and South Ossetia, which are outside of Georgia's effective control.¹⁶

In 2019, due to access not being granted to the remaining minefields, The HALO Trust had suspended all operations in Tbilisi Administered Territory, apart from one two-month task clearing abandoned explosive ordnance at Chonto, near the Administrative Boundary Line with South Ossetia, which it completed in July. The Abkhazia programme continued operations at Primorsky and HALO also responded to EOD call-outs.¹⁷

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

As at May 2020, Georgian National Mine Action Standards and National Technical Standards and Guidelines were still under development. The International Mine Action Standards (IMAS) and International Ammunition Technical Guidelines are being translated into Georgian.¹⁸

The HALO Trust has standing operating procedures (SOPs) in place for all its activities, including survey, mine clearance, and EOD. No modifications or enhancements were made to these SOPs in 2019.¹⁹

OPERATORS AND OPERATIONAL TOOLS

The HALO Trust, which is the only international operator working in the country, conducts survey and both BAC and mine clearance.²⁰ In 2019, the HALO Trust deployed 33 personnel to conduct BAC at Primorsky.²¹ DELTA retains a small demining and EOD capacity in Tbilisi Administered Territory.

In Tbilisi Administered Territory, quality management (QM) is conducted by DELTA. In Abkhazia, The HALO Trust is responsible for its own QM.²²

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

No CMR survey or clearance took place in 2019. One submunition was destroyed during an EOD spot task but this was found to be residual contamination not evidence of a broader problem.²³

It is believed that, with the possible exception of South Ossetia, Georgia is now free from CMR. Georgia has reported that, in the areas cleared by The HALO Trust in Abkhazia which are currently outside its control, external QA/QC could not be completed. Georgia, therefore, cannot confirm whether this land is free of contamination.²⁴

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

Georgia is said to have a residual risk capacity for CMR with plans in place for dealing with residual risk and liability.²⁵

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- 1 Emails from Oleg Gochashvili, Head of Division, DELTA, 12 May 2020.
 - 2 Explosive Remnants of War Coordination Centre, "Explosive Remnants of War Coordination Centre (ERWCC) in Facts and Figures", November 2009, p. 17.
 - 3 Email from Jonathon "Gus" Guthrie, Programme Manager, NPA, 27 May 2010.
 - 4 Email from Oleg Gochashvili, DELTA, 20 June 2017.
 - 5 Email from Oleg Gochashvili, DELTA, 25 April 2018; and Irakli Chitanava, Programme Manager, HALO Trust, 25 May 2018.
 - 6 Email from Oleg Gochashvili, DELTA, 25 April 2018; and Irakli Chitanava, Programme Manager, HALO Trust, 25 May 2018.
 - 7 Emails from Oleg Gochashvili, Head of Division, DELTA, 28 March 2019; and Matthew Walker, Programme Officer, HALO Trust, 8 April 2019; Decree 897 issued by the Minister of Defence, 30 December 2010; and email from Oleg Gochashvili, DELTA, 20 June 2016 and 10 June 2019; Convention on Certain Conventional Weapons (CCW) Protocol V Article 10 Report (for 21 March 2017 to 31 March 2018), Form A.
 - 8 Email from Oleg Gochashvili, DELTA, 12 May 2020.
 - 9 Email from Matthew Walker, HALO Trust, 8 April 2019.
 - 10 Email from Michael Montafi, HALO Trust, 8 May 2020.
 - 11 Ibid.
 - 12 Ibid.
 - 13 Email from Matthew Walker, HALO Trust, 8 April 2019.
 - 14 Emails from Oleg Gochashvili, DELTA, 28 March 2019; and Michael Montafi, HALO Trust, 8 May 2020.
 - 15 Email from Oleg Gochashvili, DELTA, 28 March 2019.
 - 16 Emails from Oleg Gochashvili, DELTA, 28 March and 10 June 2019; and Matthew Walker, HALO Trust, 8 April 2019. The Tbilisi Administered Territory (TAT) does not include the autonomous republics of Abkhazia, and South Ossetia, which are outside of Georgia's effective control.
 - 17 Email from Michael Montafi, HALO Trust, 8 May 2020.
 - 18 Email from Oleg Gochashvili, DELTA, 12 May 2020.
 - 19 Email from Michael Montafi, HALO Trust, 8 May 2020.
 - 20 Email from Irakli Chitanava, HALO Trust, 2 May 2017.
 - 21 Email from Michael Montafi, HALO Trust, 20 July 2020.
 - 22 Email from Oleg Gochashvili, DELTA, 28 March 2019.
 - 23 Email from Oleg Gochashvili, DELTA, 12 May 2020.
 - 24 Ibid.
 - 25 Email from Oleg Gochashvili, DELTA, 28 March 2019.

RECOMMENDATIONS FOR ACTION

- Iran should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Iran should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- Iran should report publicly on the extent and location of CMR and prepare a plan for their clearance and destruction.

UNDERSTANDING OF AP MINE CONTAMINATION

The extent of CMR contamination in Iran is not known. Some contamination is believed to remain from the Iran-Iraq war in 1980–88,¹ when cluster munitions were widely used in Khuzestan and to a lesser extent in Kermanshah. Iraqi forces used mostly French- and Russian-made cluster munitions in attacks on oil facilities at Abadan and Mah-Shahr, and Spanish-made cluster munitions in attacks on troop positions at Dasht-e-Azadegan. Air Force explosive ordnance disposal (EOD) teams cleared many unexploded submunitions after attacks but contamination remains around Mah-Shahr and the port of Bandar Imam Khomeini, according to a retired Iranian Air Force colonel.²

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Iran also has areas containing anti-personnel mines (see Mine Action Review's *Clearing the Mines 2020* report on Iran for further information).

PROGRAMME MANAGEMENT

The Iran Mine Action Centre (IRMAC) was established as the national mine action centre in 2005, taking the place of a mine action committee within the Ministry of Defence. IRMAC is responsible for planning, data, managing survey, procurement, and the accreditation of demining operators. It also sets standards, provides training for clearance operators, concludes contracts with demining operators, and ensures quality assurance (QA) and quality control (QC) of their operations. It coordinates mine action with the General Staff of the Armed Forces, the Ministry of Interior, the Management and Planning Organisation of Iran, and other relevant ministries and organisations, and handles international relations.³ Several IRMAC staff are believed to be serving or former military personnel, including its Director, while others are civilians employed by the Ministry of Defence.

IRMAC is said to have a branch in every affected province. Available demining assets, such as mechanical assets, vary from province to province.

In March 2019, Iran hosted a three-day international roundtable on “humanitarian mine action: challenges and best practices”, attended by representatives from other states, national and international demining organisations, the International Committee of the Red Cross (ICRC), and the United Nations Mine Action Service (UNMAS). The aim of the roundtable was to share knowledge and experience on mine action, challenges, and best practices.⁴

In November 2019, Iran opened its first international humanitarian demining training centre in Tehran.⁵

Iran is believed to have dedicated significant resources and effort to clearing areas on its territory contaminated by mines, CMR and other explosive remnants of war (ERW), but the results of survey and clearance have not been made publicly available.

INFORMATION MANAGEMENT AND REPORTING

IRMAC actively maintains a national mine action database but it is not known to what extent it is comprehensive, up-to-date, and able to disaggregate CMR contamination and clearance output from that of other explosive ordnance.

IRMAC reported that it has a geographic information system (GIS), web-based, integrated information management system, which integrates information on quality, safety, and the environment.⁶

LAND RELEASE

OPERATORS AND OPERATIONAL TOOLS

IRMAC combines the roles of regulator and operator, with demining teams and support staff deployed in the five affected provinces. In Kurdistan province, IRMAC is conducting verification, mainly through mechanical clearance. IRMAC also responds to calls from the local community reporting items of explosive ordnance. Demining capacity in Kurdistan province is believed to stand at around 12 personnel, a reduction on earlier capacity.⁷

Commercial operators include AOM, Immen Sazan Omran Pars International, Immen Zamin Espadana, and Solh Afarinan-e Bedoun-e Marz (SABM). Three other companies, Imen Gostaran Mohit (IGM), Moshaver Omran Iran, and ZPP International, undertake QA/QC.⁸

Petroleum Engineering and Development Company (PEDEC), the development arm of the National Iranian Oil Company (NIOC), contracts and monitors commercial operators conducting clearance of Iran's oil and gas producing areas which are concentrated in mine-affected areas of western and south western Iran bordering Iraq.⁹

Commercial mine and ERW clearance in Iran is conducted to ensure that land is free from explosive ordnance before it is used for economic purposes or developed. It is separate to humanitarian demining of areas known or suspected to contain explosive ordnance in order to make the land safe for civilian use, which comes under the remit of IRMAC. In a number of countries, commercial demining is applied to areas whether or not there is firm evidence of a threat from explosive ordnance.

The Iranian Army and Iranian Revolutionary Guard Corps assisted demining efforts to support the response to the flash flooding which affected Iran in March and April 2019.¹⁰

International operators are not believed to have been active in Iran since 2008.

There is no available information on quality management procedures. In the past, very high levels of casualties were recorded during demining in Iran. IRMAC reported that since its establishment, in 2005, 200 deminers have been killed or injured during clearance of mines and ERW, which equates to one accident for every 15,000 mines or ERW detected.¹¹

According to IRMAC, more than 2 million mines and over 1 million items of ERW have been destroyed since the start of its programme.¹²

LAND RELEASE OUTPUTS

No data was available on CMR survey or clearance in 2019, as was the case in the previous year.

As at August 2020, 18 submunitions had been discovered in the first seven months of the year, during ERW clearance of some 7km² in a commercial clearance project in Khuzestan province in the south-west of Iran.¹³ As part of the project, which is almost completed, the Pasargad Energy Development Company (PEDC) has a demining department and subcontracts a demining contractor and QA/QC.¹⁴

1 Statement by Gholamhossein Dehghani, Ministry of Foreign Affairs of Iran, CCM Second Meeting of States Parties, Beirut, 13 September 2011.

2 Interview with Air Force Colonel (ret.) Ali Alizadeh, Tehran, 8 February 2014.

3 IRMAC PowerPoint Presentation, Tehran, 9 February 2014; and IRMAC, "Presentation of IRMAC".

4 "Tehran hosts international roundtable on humanitarian mine action", Mehr news agency, 12 March 2019, at: bit.ly/2Z4LsIE; and ICRC, "International roundtable on 'humanitarian mine action: challenges and best practices'", 15 March 2019, at: bit.ly/2QH3cR6.

5 "1st International Humanitarian Demining Training Center opens in Tehran", Mehr News Agency, 12 November 2019, available at: bit.ly/2C7wRzG.

6 IRMAC PowerPoint presentation, available at: bit.ly/38ALojt; and presentation by Mr Pourbagher, Deputy Director of IRMAC, National Directors Meeting, Geneva, 12 February 2020.

7 Information provided by Reza Amaninasab, Director, Ambassadors for development without borders, September 2019.

8 Ibid.

9 Information provided by mine action expert on condition of anonymity.

10 Information provided by Reza Amaninasab, Ambassadors for development without borders, September 2019.

11 IRMAC PowerPoint presentation, available at: bit.ly/38ALojt; and presentation by Mr Pourbagher, Deputy Director of IRMAC, National Directors Meeting, Geneva, 12 February 2020.

12 Ibid.

13 Information provided by Reza Amaninasab, Ambassadors for development without borders, August 2020.

14 Information provided by Reza Amaninasab, Ambassadors for development without borders, September 2020.

RECOMMENDATIONS FOR ACTION

- Libya should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Libya should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- All parties to the conflict in Libya should ensure that forces loyal to them do not use cluster munitions.
- As soon as political conditions permit, Libya should enact mine action legislation, establish an interministerial national mine action authority, and adopt a national mine action strategy.
- Libya should, at the earliest opportunity possible and as soon the security situation permits, conduct a baseline survey to identify the extent of contamination from CMR and begin systematic clearance.

UNDERSTANDING OF AP MINE CONTAMINATION

CMR contamination in Libya is largely the consequence of armed conflict in 2011 and renewed conflict since 2014, but the extent of contamination is unknown. In 2011, armed forces used at least three types of cluster munition, including MAT-120 mortar projectiles, RBK-250 PTAB-2.5M cluster bombs, and DPICM-like submunitions delivered by 122mm cargo rockets.¹ Additional contamination by CMR occurred as a result of kick-outs from ammunition storage areas bombed by North Atlantic Treaty Organization (NATO) forces in 2011.²

Since the overthrow of Qaddafi in 2011, Libya has remained mired in conflict as tribal and armed groups struggle to take over power. In early 2015, fighting between Libya's rival armed groups saw reported use of cluster munitions, including RBK-250 PTAB-2.5M bombs, in attacks on Bin Jawad near the port of Es-Sidr in February, and in the vicinity of Sirte in March. The Libyan Air Force, controlled by the internationally recognised government of the time, had bombed both locations, though it denied using cluster bombs.³ According to Cluster Munition Monitor, there are indications that additional attacks may have occurred since that time, including in 2016, 2017, and 2018.⁴ According to the Monitor, further evidence of cluster munition use may have gone unrecorded due to a lack of media and independent reporting from the ground, and the Monitor was unable to independently verify and confirm this evidence of possible use.⁵

Since April 2019, Libya's governance has been divided between the two entities engaged in an armed conflict, the UN-recognised Government of National Accord (or GNA) and the self-styled Libyan National Army (LNA), led by commander Khalifa Haftar, who laid siege to Tripoli beginning in April 2019.⁶

In May 2019, LNA forces loyal to General Haftar were accused of using cluster bombs in attacks in and around Tripoli.⁷ On 15 and 16 August 2019, aircraft of forces affiliated with the LNA/aligned to Khalifa Haftar used cluster munitions in an attack on Zuwarah International Airport, according to the UN Panel of Experts report from December 2019.⁸ According to reports by Human Rights Watch, forces aligned to Khalifa Haftar also used cluster munitions in an airstrike in a residential area in Tripoli on or around 2 December 2019. Human Rights Watch visited the site on 17 December 2019 and found remnants of two RBK-250 PTAB 2.5M cluster bombs, as well as evidence that high-explosive air-dropped bombs were also used in the attack. The area was not known to be contaminated by cluster munitions before the attack.⁹

As at March 2019, Humanity and Inclusion (HI) reported being aware of three areas of CMR contamination through its own operations. One cluster munition-contaminated area was confirmed in 2017, through non-technical survey in the Nafusa mountains region, near the town of Kikla, in north-west Libya. Then, in 2018–19, further cluster munition strikes were also discovered by HI in Tawargha and Al Karareem.¹⁰

According to the Libyan Mine Action Centre (LibMAC), cluster munition contamination in Libya has been largely removed and remaining contamination is limited to a small number of areas.¹¹ Most recently, LibMAC confirmed it had evidence of RBK-250-275 cluster bomb use in three areas: Al-Hira Bridge (Al-Sawani); the Bir al-Ghanam area south-west of Tripoli (Nafusa Mountains); and Aziziya (south of Tripoli).¹²

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Libya is also contaminated by other unexploded ordnance (UXO), anti-personnel mines including those of an improvised nature (see Mine Action Review's *Clearing the Mines 2020* report on Libya for further information), and by other improvised explosive devices (IEDs).¹³ According to the United Nations Mine Action Service (UNMAS), ongoing conflict has resulted in significant explosive remnants of war (ERW) contamination in cities across Libya.¹⁴

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Mine action exists in a fragmented and violent political context. Following years of armed conflict, a new UN-backed "unity" government, the GNA, was formally installed in a naval base in Tripoli in early 2016. It has subsequently faced opposition from two rival governments and a host of militia forces. In April 2019, Khalifa Haftar, a military commander based in the west of the country, launched an offensive to take control of Tripoli and topple the GNA, and fighting continued into the first half of 2020.

LibMAC was mandated by the Minister of Defense to coordinate mine action in December 2011.¹⁵ Operating under the UN-backed Government of National Accord, LibMAC's headquarters are in Tripoli, in the west of the country, and it also has offices in Benghazi¹⁶ and Misrata.¹⁷ The operating costs and salaries for LibMAC are funded by the United States Department of State and administered by ITF Enhancing Human Security (ITF).¹⁸

ITF also provides capacity building support to LibMAC. In order to further increase LibMAC capacity, a new ITF operations technical advisor was deployed on 1 February 2019, primarily to advise LibMAC's Chief of Operations and provide advice on improvement of internal LibMAC procedures. In early April 2019, however, ITF was forced to evacuate its technical advisor due to the lack of security.¹⁹

UNMAS has largely been operating from Tunis since November 2014, from where it provides institutional and operational capacity-building, training, including in explosive ordnance disposal (EOD), and coordinates with national authorities and implementing partners to carry out mine action activities to mitigate the threat posed by ERW and provide technical advice and advisory support on arms and ammunition management. The UNMAS Libya Programme is an integral part of the United Nations Support Mission in Libya (UNSMIL).²⁰

In January 2019, most UN staff returned to Tripoli, but due to the hostilities that commenced in April 2019 and the deterioration of security, most subsequently returned to Tunis to operate remotely again. In 2019–20, UNMAS was providing non-technical survey, risk education, and EOD response in various locations across Libya, including in Tawargha, Tripoli and Benghazi, to facilitate humanitarian activities, early recovery, and to prepare for the safe return of displaced people.²¹

UNMAS prioritises capacity enhancement of Libyan mine action actors and supports LibMAC in coordination with Implementing Partners. Since 2015, UNMAS has trained more than 70 National Safety Authority (NSA) operators and Military Engineers in advanced EOD; 30 officers from eastern Libya in non-technical survey; provided advanced medical first responder training to 72 EOD operators from Benghazi; and trained several operators to address the threat from explosive hazards in Sirte. UNMAS also provided EOD equipment to national actors and assisted LibMAC in developing the Libyan Mine Action Standards which are now being implemented.²² In 2017/18, the United States Office of Weapons Removal and Abatement (WRA) and the United Kingdom financed training of 70 IED operators in Sirte, conducted by JANUS, and with participants from the NSA and Military Engineers.²³

In 2019, The HALO Trust worked closely with LibMAC to build their capacity to quality assure and accredit mechanical clearance. HALO Trust ran a workshop in the LibMAC Tripoli office, covering all aspects of mechanical clearance. In addition, HALO provided translated quality assurance forms for quality assuring task sites and for accrediting the armouring of mechanical assets; and also conducted armour testing of different materials to provide a baseline of information for LibMAC.²⁴

GENDER AND DIVERSITY

LibMAC is not thought to have a gender and diversity policy for mine action in place. Of the twenty employees at LibMAC, three are women, including one in the Risk Education (RE) department (whose responsibilities include providing RE to women and children), one in logistics, and one in an administrative role.²⁵

The HALO Trust reported that its Libya programme seeks to comply with HALO's general gender and diversity policy. However, due to rigid gender norms that largely impede women's free movement and ability to work in a mixed-gender office setting, particularly reinforced in areas with strong Islamist influence such as Sirte, HALO has reported that the recruitment of women, including for non-operational roles, has proved difficult. In 2019, four of HALO's thirty employees in Libya were women (one international staff and three national staff), including one female community liaison officer in Sirte.²⁶

HALO's approach to community liaison, including door-to-door risk education prior to clearance, targeted risk education task sites, and specific events to reach out to women in particular, is designed to reach out to women and men equally. This is especially important, given that

women are largely absent from public life. In particular, the introduction of pre-clearance focus group discussions with women and men separately helps to ensure that subsequent community liaison/risk education activities are targeted to the needs of all beneficiaries.²⁷ With regards to diversity, in Sirte, HALO Trust recruits equally among the tribes and seeks to consult all ethnic groups during survey and clearance processes. HALO makes task prioritisation recommendations based on humanitarian need, although all task orders are issued under the authority of LibMAC.²⁸ The HALO Trust disaggregates relevant mine action data by gender and age.²⁹

HI reported in 2019 that it had a gender policy in place and disaggregates data by sex and age.³⁰ HI's risk education team, which also conducted community liaison, was gender balanced. Two of HI's project managers and two project officers were female, but women were not employed in survey and clearance, as this was deemed culturally unacceptable for now.³¹ HI stopped mine action operations in Libya in April 2019.³²

INFORMATION MANAGEMENT AND REPORTING

LibMAC receives technical support for IMSMA from the Geneva Centre for Humanitarian Demining (GICHD) and UNMAS. In March 2019, HI reported that LibMAC had recently announced details of a new effort to bring the IMSMA database up to date and ensure the data are reliable.³³ With support from the GICHD, LibMAC planned to transition from IMSMA to IMSMA Core in mid 2020.³⁴

IMSMA is accessible to clearance organisations and data collection forms are reported to be consistent and enable collection of necessary data.³⁵

Since early 2019, The HALO Trust has been working closely with LibMAC to cover mechanical clearance in the Libyan IMSMA database. The planned transition to IMSMA Core will allow data entry for mechanical clearance.³⁶

PLANNING AND TASKING

No national mine action strategy is currently known to exist for Libya.

LibMAC does, however, prioritise survey and clearance operations and is responsible for issuing task orders. Prioritisation is, in part, informed by data collected and reported to LibMAC by operators such as the Danish Demining Group (DDG), during non-technical survey or EOD, and by reports from the local community.³⁷ According to HI, LibMAC generally tasks according to geographic area and the nearest available assets.³⁸

HALO Trust reported that prioritisation is based on humanitarian need with residential areas, community infrastructure, and key access points taking precedence. In Sirte, this means the two neighbourhoods where fighting was heaviest in 2016. In preparation for future clearance along the Tripoli frontlines, areas with significant verified evidence of fighting (as determined by HALO Trust's Tripoli ERW Hazard Mapping and Information Management (IM) project) will be prioritised for survey.³⁹

The Tripoli ERW Hazard Mapping and IM Project uses open-source data collation and geolocation techniques to map potential ERW contamination along the Tripoli frontlines by collecting information on active fighting incidents, weapons systems, and ammunition used, and ERW-related accidents and displacement. The online data collection portal, linking to a live database that is shared with LibMAC and other stakeholders, is used to track historical data starting from 4 April 2019 up to recent events. Mapping ERW contamination along the frontlines enables LibMAC to coordinate and direct specialist clearance capacity as well as risk education teams to the most highly contaminated areas.⁴⁰

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

There is no national mine action legislation in Libya, but National Mine Action Standards (LibMAS), in Arabic and English, have been elaborated with the support of the GICHD and UNMAS, and were approved by the GNA in August 2017. The LibMAS are available on the LibMAC website.⁴¹ According to international clearance operators, the national mine action standards are aligned to the International Mine Action Standards (IMAS), reproducing it word-for-word in many parts.⁴²

While the LibMAS are broad and not overly restrictive, they may, however, be open to different interpretation by various stakeholders and do not necessarily reflect local circumstances and conditions, including the specific context of clearance in urban areas. An example of this is the lack of urban specific characteristics of direct versus indirect evidence, which may lead to more general consideration of evidence and result in less accurate task boundaries.⁴³

OPERATORS AND OPERATIONAL TOOLS

Mine action operations have been conducted by the army engineers, a police unit, and the Ministry of Interior's NSA, also known as Civil Defence.⁴⁴ Military engineers reportedly lack mine detectors and are working with basic tools.⁴⁵ The NSA is mandated to conduct EOD in civilian areas.⁴⁶ These institutions liaise with LibMAC but are not tasked or accredited by them, nor do they provide clearance reports to the Centre.

The deteriorating security situation resulted in the withdrawal of UNMAS and international mine action operators from Libya in mid 2014. International clearance operators active in Libya include DanChurchAid (DCA), DDG, and HALO Trust.⁴⁷ HI's survey and clearance operations stopped in April 2019 and the project formally ended in June of that year.⁴⁸ National non-governmental organisation (NGO) operator, Free Fields Foundation (3F), was also operational and another national operator, the Libyan Demining Group (LDG), was in the process of becoming established as at February 2019.⁴⁹ LDG is believed to have been accredited by LibMAC, but was not currently operational as at the time of writing. Local organisations Peace Organization from Zintan and World Without War (3W), from Misrata, which had been trained by HI in 2016 and received accreditation for non-technical survey,⁵⁰ subsequently had their operations suspended for not fully following standards and in addition, neither organisation had secured funding.⁵¹

DCA is operational in Libya clearing residential, commercial, education, medical, and agricultural sites of mines and ERW, and providing training in clearance, search, and EOD, to help strengthen the capacity of national authorities. DCA also conducts risk education. Now in its ninth year of working in Libya, DCA has offices in Al-Bayda, Benghazi, Misrata, Sirte, and Tripoli.⁵²

DDG set up in Benghazi in December 2017. It had hoped to expand non-technical survey and EOD capacity in Benghazi from the late summer of 2018. In Sabha, DDG had one non-technical survey team and one EOD team, which it was managing remotely. Security issues in the south continue to disrupt mine action operations and prevent continuous operations. In Tripoli, DDG works through its national implementing partner, 3F. 3F operates under DDG's accreditation and standing operating procedures (SOPs), and has an operational contingent of 37, composed in three EOD teams and one non-technical survey team.⁵³

GCS, which finished its operations in 2019, was working in partnership with Libyan NGO 3F to clear ERW from an ammunition storage area on a military airbase in Misrata. The area comprised 37 bunkers destroyed by NATO airstrikes in 2011.⁵⁴ As of March 2019, GCS and 3F had collected a cumulative total of more than 200 tons of ERW and scrap metal of which 40 tons were successfully destroyed through bulk demolitions and burning. An estimated 12,500m² of battle area clearance (BAC) was also conducted around the ammunition storage area.⁵⁵

The HALO Trust has been present in Libya since November 2018, and has offices in Misrata, Sirte, and Tripoli. HALO deployed one four-strong survey/community liaison team in 2019, in partnership with DCA. In September 2019, LibMAC accredited the first mechanical clearance teams in Libya, with clearance at HALO's first task site beginning in October. HALO deployed two mechanical clearance teams, each consisting of one team leader, one operator, and two deminers. The teams shared a single mechanical asset in 2019, while awaiting physical delivery of additional assets. As at July 2020, HALO Trust was training non-technical survey teams in Tripoli and aimed to introduce mechanical clearance in 2020 in response to newly suspected mined areas in southern Tripoli.⁵⁶

The HALO Trust and DCA are currently working in partnership in Sirte under a joint three-year European Union (EU) Instrument Contributing to Stability and Peace (ICSP) contract, which started in February 2019. Under this contract, HALO provides three mechanical clearance assets and two mechanical clearance teams (MCTs). In January 2020, the first EU-funded MCT was deployed in Sirte. The first of three mechanical clearance assets, a medium-range front-loader, was procured and upgraded locally in Libya in January 2020.⁵⁷

A separate 18-month UK Conflict, Stability and Security Fund (CSSF) contract in which HALO Trust had also partnered with DCA in Sirte ended on 31 March 2020. During this project HALO had led on mechanical clearance and DCA had provided the supporting EOD capacity, along with a joint non-technical survey team and mine risk education team.⁵⁸ HALO Trust and DCA conducted a socio-economic assessment of Sirte and a field assessment for areas of possible mine and ERW contamination which potentially require mechanical clearance.⁵⁹ CSSF continue to provide funding in Sirte to HALO who provide mechanical clearance teams as well as non-technical survey and community liaison teams.⁶⁰

Humanitarian access to Libya for survey and clearance operations, remains challenging for all operators. HALO, for example, experienced delays in the granting of multiple-entry visas and limited movement between locations due to ongoing conflict and changing frontlines. In Libya, the provision of security is highly localised; tribe-affiliated armed groups, with oftentimes shifting allegiances, control cities and towns down to neighbourhood level. This in turns requires humanitarian actors to have good knowledge of armed group conglomerates on the one hand and to liaise with many interlocutors on the other hand. The risk of arbitrary detention for local staff is high, either due to tribal background or due to suspected affiliation with opposing armed groups.⁶¹

HALO is mitigating security risks to its staff by maintaining working relationships with key interlocutors in both East and West Libya, including LibMAC, ministries, and municipal authorities. Community liaison in Benghazi, Misrata, Sirte, and Tripoli is key to ensuring community acceptance. In Sirte specifically, HALO recruits equally among the tribes. International staff are sometimes needed to cut across tribal lines when negotiating access.⁶²

HI conducted EOD spot tasks in 2019 in Tawerga, Misrata, but was hindered by security issues. It stopped survey and clearance operations in April 2019 and the project formally ended in June 2019, although its victim assistance work in Libya continues.⁶³

A number of other Libyan civil society organisations are also reported to carry out mine action operations, but they are not accredited by LibMAC.

UNMAS provides institutional and operational capacity-building, training, including in EOD, and coordinates with national authorities and implementing partners to carry out mine action activities to mitigate the threat posed by ERW and provide technical advice and advisory support on arms and ammunition management. The UNMAS Libya Programme is an integral part of UNSMIL.⁶⁴ (See Programme Management section for further details).

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2019

There were no reports of planned CMR clearance during 2019 although several operators engaged in EOD operations.

In 2018, HI reported clearing 4,151m² of CMR in an area in Tawerga, in Misrata.⁶⁵

SURVEY IN 2019

There were no other known reports of survey of CMR during 2019, although data from LibMAC, UNMAS, and several clearance operators were not made available.

In 2018, HI confirmed a total of 110,430m² as CMR-contaminated, which it reported to LibMAC.⁶⁶

According to ITF's annual report, in 2019, LibMAC personnel opened 84 new tasks mostly for risk education and non-technical survey activities performed by international and local NGOs in Benghazi, Sirte, and Tawargha where LibMAC personnel conducted 52 QA/QC missions. LibMAC also conducted 23 accreditation procedures for international and local NGO teams to perform non-technical survey, risk education and EOD activities/tasks.⁶⁷

According to a January 2020 report of the Secretary-General on UNSMIL, "The Mine Action Service project in Benghazi, [mandated] to conduct emergency clearance and map explosive hazards, has removed 40 items of unexploded ordnance and completed non-technical surveys of 24 sites. The surveys will inform future clearance operations and support the protection of civilians and stabilization."⁶⁸ The report did not, however, specify the type of unexploded ordnance.

CLEARANCE IN 2019

There were no known reports of clearance of CMR during 2019, although data from LibMAC, UNMAS, and several clearance operators were not made available.

In 2018, HI cleared 4,151m² of CMR contamination, in an area in Tawerga, in Misrata, during which 11 submunitions were destroyed.⁶⁹

PROGRESS TOWARDS COMPLETION

LibMAC describes the following challenges to implementation of mine action operations: the high level of contamination; ongoing conflict and the continued presence of Islamic State; the difficulty in convincing internally displaced persons to delay their return until the ERW threat is addressed; security and access to priority areas; the limited ERW and EOD capacity in Libya; the vast geographical area; and limited governmental and international support.⁷⁰ Security conditions continued to pose a challenge to mine action in Libya.

- 1 Cluster Munition Monitor, "Libya: Cluster Munition Ban Policy", Last updated 27 July 2019, at: bit.ly/2YAbygi.
- 2 Ibid.
- 3 Human Rights Watch, "Libya: Evidence of new cluster bomb use", 15 March 2015.
- 4 Cluster Munition Monitor, "Libya: Cluster Munition Ban Policy", last updated 27 July 2019.
- 5 Ibid.
- 6 "Libya's cities left 're-contaminated' by months of fighting, warn landmine clearance experts", UN News, 12 February, available at: bit.ly/322lgg2; and Human Rights Watch (HRW), "Libya: landmines left after armed group withdraws", 3 June 2020, available at: bit.ly/2DIE5AM.
- 7 Cluster Munition Monitor, "Libya: Cluster Munition Ban Policy", Last updated 27 July 2019; and "Tripoli forces claim successes and accuse Hafter of using cluster bombs and internationally banned phosphorus bombs", Libya Herald, 20 June 2019.
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- 10 Email from Catherine Smith, Head of Mission, HI, 12 March 2019.
- 11 Interview with Col. Turjoman, Director, LibMAC, in Geneva, 7 February 2019.
- 12 Email from Adel Elatwi, Chief of Operations, on behalf of Col. Turjoman, LibMAC, 4 July 2019.
- 13 "Lives and Limbs Shattered by Libya Mines", Asharq Al-Awsat, 5 April 2018.
- 14 UNMAS, "Programmes: Libya", accessed 16 May 2019, at: bit.ly/2WMTzTk.
- 15 LibMAC website, accessed 23 March 2020, at: bit.ly/2JqVr0S.
- 16 Email from Jakob Donatz, Associate Programme Officer, UNMAS, 21 June 2018.
- 17 Email from Roman Turšič, Head of Implementation Office Libya/Afghanistan, ITF, 26 February 2017; and interview with Col. Turjoman, LibMAC, in Geneva, 10 January 2017.
- 18 ITF, "Annual Report 2019", pp. 19 and 76.
- 19 Ibid., p. 76.
- 20 UNMAS, "Programmes: Libya", accessed 23 March 2020, at: bit.ly/2WMTzTk; and emails from Lyuba Guerassimova, Programme Officer, UNMAS, 28 February 2017; Dandan Xu, Associate Programme Management Officer, UNMAS, 12 July 2017; and Jakob Donatz, UNMAS, 21 June 2018; and Report of the Secretary-General on UNSMIL, UN doc. S/2018/140, 12 February 2018, p. 12.
- 21 UNMAS, "Programmes: Libya", accessed 23 March 2020, at: bit.ly/2WMTzTk.
- 22 Ibid.
- 23 Email from Roman Turšič, ITF, 7 September 2020.
- 24 Email from Nick Torbet, Deputy Head of Region, Middle East, North Africa and Afghanistan, HALO Trust, 14 April 2020.
- 25 Email from Roman Turšič, ITF, 7 September 2020.
- 26 Emails from Nick Torbet, HALO Trust, 14 April 2020.
- 27 Ibid.
- 28 Emails from Nick Torbet, HALO Trust, 14 April and 27 July 2020.
- 29 Email from Nick Torbet, HALO Trust, 14 April 2020.
- 30 Email from Catherine Smith, HI, 12 March 2019.
- 31 Ibid.
- 32 Email from Silvia Mari Bachero, Operations Coordinator, HI Libya, 29 July 2020.
- 33 Email from Catherine Smith, HI, 12 March 2019.
- 34 Email from Nick Torbet, HALO Trust, 14 April 2020.
- 35 Email from Catherine Smith, HI, 12 March 2019.
- 36 Email from Nick Torbet, HALO Trust, 14 April 2020.
- 37 Telephone interview with Darren Devlin, Programme Manager Libya, DDC, 20 June 2018; and email, 4 July 2018.
- 38 Email from Catherine Smith, HI, 12 March 2019.
- 39 Email from Nick Torbet, HALO Trust, 14 April 2020.
- 40 Ibid.
- 41 LibMAC website, accessed 23 March 2020, at bit.ly/2JFIhFE; Report of the Secretary-General on UNSMIL, UN doc. S/2018/140, 12 February 2018, p. 12; and UNMAS, "Programmes: Libya", accessed 23 March 2020.
- 42 Emails from Catherine Smith, HI, 12 March 2019; and Nick Torbet, HALO Trust, 14 April 2020.
- 43 Email from Nick Torbet, HALO Trust, 14 April 2020.
- 44 Interview with Col. Turjoman, LibMAC, in Geneva, 10 January 2017.
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- 47 Interview with Col. Turjoman, LibMAC, in Geneva, 7 February 2019.
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- 49 Ibid.
- 50 Email from Catherine Smith, HI, 22 February 2017.
- 51 Interview with Col. Turjoman, LibMAC, in Geneva, 7 February 2019.
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- 54 GCS website, "GCS successfully collects 200 tons of explosive remnants of war in Libya", accessed 16 May 2019, at: gcs.ch/libya.
- 55 "GCS successfully collects 200 tons of explosive remnants of war in Libya", GCS website, accessed 8 July 2020.
- 56 Email from Nick Torbet, HALO Trust, 27 July 2020.
- 57 Email from Nick Torbet, HALO Trust, 14 April 2020.
- 58 Ibid.
- 59 Email from Liam Chivers, Programme Manager, HALO Trust, 10 June 2019.
- 60 Email from Nick Torbet, HALO Trust, 27 July 2020.
- 61 Email from Nick Torbet, HALO Trust, 14 April 2020.
- 62 Ibid.; and 27 July 2020.
- 63 Email from Catherine Smith, HI, 12 March and 11 June 201; and Silvia Mari Bachero, HI Libya, 29 July 2020.
- 64 UNMAS, "Programmes: Libya", accessed 23 March 2020, at: bit.ly/2WMTzTk; and emails from Lyuba Guerassimova, Programme Officer, UNMAS, 28 February 2017; Dandan Xu, Associate Programme Management Officer, UNMAS, 12 July 2017; and Jakob Donatz, UNMAS, 21 June 2018; and Report of the Secretary-General on UNSMIL, UN doc. S/2018/140, 12 February 2018, p. 12.
- 65 Email from Catherine Smith, HI, 12 March 2019.
- 66 Ibid.
- 67 ITF, "Annual Report 2019", p. 75.
- 68 Report of the Secretary-General on UNSMIL, UN doc. S/2020/41, 15 January 2020, p. 11.
- 69 Email from Catherine Smith, HI, 12 March 2019.
- 70 PowerPoint presentation by Col. Turjoman, LibMAC, at the UN National Programme Director's Meeting, Geneva, 8 February 2017.

RECOMMENDATIONS FOR ACTION

- Serbia should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Serbia should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- Serbia should consider using its armed forces to conduct clearance of CMR as they are already clearing other unexploded ordnance (UXO).
- The Serbian Mine Action Centre (SMAC) should conduct non-technical and technical survey, rather than full clearance, in instances where survey represents the most efficient means to release part or all of areas suspected or confirmed to contain CMR.

UNDERSTANDING OF AP MINE CONTAMINATION

At the end of 2019, Serbia had 10 areas confirmed to contain CMR covering almost 1km², while a further three areas over almost 1.4km² were suspected to contain CMR (see Table 1).¹ This was a decrease of 0.12km² of total CMR-contaminated area at the end of 2018,² following clearance operations in the municipality of Niš. Some CMR contamination in Raška and Sjenica municipalities recorded as SHA in 2018, was recorded instead as CHA in 2019, following confirmation of CMR.³

Table 1: Cluster munition-contaminated area by municipality (at end 2019)⁴

Municipality	Village	CHAs	Area (m ²)	SHAs	Area (m ²)
Bujanovac	Borovac	2	210,881	1	281,169
Raška	Lisina	1	190,359	0	0
Sjenica	Čedovo	4	163,924	0	0
Sjenica	Vapa	3	432,912	0	0
Tutin	Istočni Mojstir	0	0	1	514,682
Užice	Bioska	0	0	1	585,268
Totals		10	998,076	3	1,381,119

CHAs = confirmed hazardous areas SHAs = suspected hazardous areas

CMR resulted from North Atlantic Treaty Organization (NATO) air strikes in 1999. According to Serbia, cluster munitions struck 16 municipalities: Brus, Bujanovac, Čačak, Gadžin Han, Knić, Kraljevo, Kuršumljica, Niš City-Municipality of Crveni Krst Niš City-Municipality of Medijana, Preševo, Raška, Sjenica, Sopot, Stara Pazova, Tutin, and Vladimirci.⁵

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Serbia is also contaminated by other UXO, including aircraft bombs, both on land and in its internal waterways, and by anti-personnel mines⁶ (see Mine Action Review's *Clearing the Mines 2020* report on Serbia for further information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

According to a Government Decree on Protection against Unexploded Ordnance, the Sector for Emergency Management, under the Ministry of Interior, acts as the national mine action authority (NMAA).⁷ The NMAA is responsible for developing standard operating procedures (SOPs); accrediting demining operators; and supervising the work of SMAC.⁸

SMAC was established on 7 March 2002, with a 2004 law making it responsible for coordinating survey and clearance; collecting and managing mine action information (including casualty data); and surveying SHAs. It also has a mandate to plan demining projects, conduct quality control (QC) and monitor operations, ensure implementation of international standards, and conduct risk education.⁹ As from 1 January 2014, according to a Government Decree on Protection against Unexploded Ordnance, the Sector for Emergency Management, under the Ministry of Interior, is responsible for accrediting demining operators. Previously, SMAC was responsible for doing so.¹⁰

A new director of SMAC was appointed by the Serbian government in July 2019.¹¹ There are seven people employed at SMAC: five SMAC employees, plus an Assistant Director for Legal Affairs and Operational Support and an Assistant Director for Economic Affairs, International Cooperation and European Integration.¹²

SMAC is fully funded by Serbia, including for survey activities, development of project tasks for clearance of contaminated areas, follow-up on implementation of project tasks, and quality assurance (QA) and QC of demining. Around €160,000 per year is allocated to the work of SMAC from the national state budget.¹³ In addition, the UXO disposal work of the Sector for Emergency Situations of the Ministry of Interior is also state funded.¹⁴ Furthermore, in 2019, Serbia also contributed national funding towards the establishment of an explosive ordnance disposal (EOD) training centre.¹⁵

Since 2015, Serbia has also been allocating national funds for survey and clearance, with roughly €100,000 allocated per year.¹⁶ In 2018, the Serbian Government allocated double the amount of national funds previously dedicated to demining operations to €200,000 (which were matched with United States and South Korean funding and tendered through ITF Enhancing Human Security (ITF)). Serbia continues to seek additional international funding.¹⁷ At the request of the national authorities, national funding was increased to €350,000 for survey and clearance operations in 2019.¹⁸ The same amount had been allocated by the Serbian government for demining operations in 2020,¹⁹ but this was subsequently reduced by 20% due to the COVID-19 crisis and efforts by the Serbian government to tackle it. Serbia will try to match national funds with donor funds through the ITF.²⁰ However, for the time being, and due to funding restraints, SMAC will continue to prioritise its national funding to mine survey and clearance, rather than CMR, to contribute towards meeting its obligations under Article 5 of the Anti-Personnel Mine Ban Convention (APMBC).²¹

SMAC also provides expertise in risk education and in training in survey and clearance, pursuant to Article 30 of the Law on Ministries, and in late 2019, the Serbian government approved funds for the establishment of a Training Centre within SMAC. In cooperation with representatives of the Ministry of Education – Institute for the Advancement of Education, SMAC has developed a training programme for educators (instructors) for mine and ERW education, which will be officially verified. Together with experts from the Ministry of Interior, SMAC plans to provide different training modules, including on ERW recognition, international mine action standards, and medical aspects.²²

GENDER AND DIVERSITY

SMAC does not have a gender policy in place and does not disaggregate relevant mine action data by sex and age. However, it does ensure women and children are consulted during survey and community liaison activities, and SMAC cooperates closely with the local authorities and other relevant stakeholders in this regard. SMAC also ensures ethnic or minority groups are consulted.²³

There is said to be equal access to employment for qualified women and men in survey and clearance operations, but country/operator-wide, only 15% of those employed in survey and clearance teams in Serbia are women.²⁴

At SMAC, 70% of employees are women, of which 65% of managerial/supervisory level positions are held by women.²⁵

INFORMATION MANAGEMENT AND REPORTING

SMAC uses its own information management system. Following on from initial discussions several years ago, in early 2020, SMAC informally discussed the possibility of the installation of the Information Management System for Mine Action (IMSMA) with the Geneva International Centre for Humanitarian Demining (GICHD) and planned to intensify discussions in the forthcoming period.²⁶

PLANNING AND TASKING

The Government of Serbia adopts SMAC's annual work plan.²⁷ The 2020 work plan includes plans to address both anti-personnel mines and CMR.²⁸

Serbia prioritises the release of areas which directly affect the local population, such as those close to settlements where local people have abandoned their houses and stopped cultivating land due to fear of landmines.²⁹ SMAC also noted that donors themselves sometimes also influence the choice of the areas which will be demined first, depending on availability and amount of their funds.³⁰

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

According to SMAC, survey and clearance operations in Serbia are conducted in accordance with International Mine Action Standards (IMAS).³¹

National mine action standards (NMAS) were said to be in the final phase of development as at September 2015.³² In April 2017, SMAC reported that, along with the relevant national authorities, it was in the process of establishing a commission to develop national standards and SOPs to define methods and techniques for survey and clearance in Serbia.³³ However, this process has been hindered due to lack of capacity,³⁴ and as at April 2020, the development of the NMAS was still only "in progress".³⁵

Under new directorship in late 2015, SMAC reassessed its land release methodology to prioritise full clearance

over technical survey of hazardous areas.³⁶ This does not correspond to international best practice and is an inefficient use of scarce clearance assets. In February 2016, a new director of SMAC reported to Mine Action Review that while SMAC supports the use of high-quality non-technical survey to identify areas suspected of containing CMR, it will fully clear these areas, rather than using technical survey to more accurately identify the boundaries of contamination.³⁷

As at April 2020, SMAC's position on its preferred land release methodology remained the same under the current Director, though there is an acknowledged willingness to conduct technical survey in a form "adjusted to the context of Serbia", in response to the stated preference of international donors for technical survey above clearance, where appropriate.³⁸

OPERATORS AND OPERATIONAL TOOLS

SMAC does not itself carry out clearance or employ deminers but does conduct survey of areas suspected to contain mines, CMR, or other explosive remnants of war (ERW). Clearance is conducted by commercial companies and non-governmental organisations (NGOs), which are selected through public tender procedures executed by ITF, supported by international funding.³⁹

The Ministry of Interior issues accreditation to mine action operators that is valid for one year. In 2019, 23 companies/organisations were accredited for demining, but only one, the NGO Stop Mines (Pale, Bosnia and Herzegovina), conducted clearance of CMR-contaminated area. Stop Mines deployed two clearance teams totalling 15 deminers.⁴⁰

An EOD department within the Sector for Emergency Management, in the Ministry of Interior, responds to call-outs for individual items of ERW, and is also responsible for demolition of items found by SMAC survey teams.⁴¹

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2019

A total of nearly 0.12km² of CMR-contaminated area was released in 2019, all through clearance.⁴²

SURVEY IN 2019

No CMR-contaminated area was released by survey in 2019⁴³ or in 2018.⁴⁴

CLEARANCE IN 2019

A total of 119,334m² of CMR-contaminated area was cleared in 2019, in the village of Crveni Krst in the municipality of Niš, during which four submunitions were destroyed. Clearance was conducted by the Bosnian-registered NGO, Stop Mines.⁴⁵ Clearance output in 2019 was an increase on 2018, when no CMR clearance was conducted in Serbia.⁴⁶

SMAC did not have available data on the number or type of individual items of ERW destroyed by the EOD department within the Sector for Emergency Management during spot tasks in 2019.⁴⁷

PROGRESS TOWARDS COMPLETION

Less than 1km² in total has been cleared in the last five years (see Table 2), which is ascribed to a lack of funding.

In its last APMBC Article 5 deadline extension request, dated 31 March 2018, Serbia had included a work plan for completion of all ERW clearance by 2023, at a predicted total cost of €20 million. CMR were not disaggregated from other ERW.⁴⁸ Progress in CMR clearance is said to be contingent on funding. Serbia predicts that if adequate funds for implementation of survey and clearance projects were secured, CMR clearance could be finished in two or three years.⁴⁹

SMAC had developed four clearance projects for 2019, totalling release of 742,615m², which were submitted to ITF for the selection of a contractor through its tender procedures.⁵⁰ However, only the project in Niš (119,344m²), was actually funded and implemented in 2019.

SMAC did, however, envisage an increase in CMR land release in 2020, with two clearance projects approved in Sjenica Municipality (94,496m²) and in Raška Municipality (190,359m²),

funded by the United States and South Korea through ITF. SMAC confirmed in August 2020 that both clearance projects had been completed.⁵¹ In addition, SMAC expected ITF to launch tender procedures for four additional projects funded by the United States: three clearance projects in Sjenica municipality (totalling 502,340m²) and a technical survey project in Tutin municipality (515,000m²).⁵²

Table 2: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2019	0.12
2018	0.00
2017	0.18
2016	0.25
2015	0.18
Total	0.73

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

SMAC envisages that it will most likely need both national and international capacity to deal with any residual contamination, discovered following completion.⁵³ Serbia is already dealing with residual ERW contamination and investing significant funds for ERW clearance, which is expected to be ongoing.⁵⁴

- 1 Email from Slađana Košutić, Senior Advisor for Planning, International Cooperation and European Integrations, SMAC, 23 April 2020.
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- 3 Email from Slađana Košutić, SMAC, 8 September 2020.
- 4 Email from Slađana Košutić, SMAC, 23 April 2020.
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- 6 Second Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request (2018), P. 10.
- 7 Official Gazette of the Republic of Serbia, No. 70/13.
- 8 Emails from Darvin Lisica, (then) Regional Programme Manager, Norwegian People's Aid (NPA), 6 May and 12 June 2016.
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- 10 2018 Article 5 deadline Extension Request, p. 17.
- 11 Email from Slađana Košutić, SMAC, 23 April 2020.
- 12 Ibid.
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- 14 SMAC, "Mine situation", accessed 8 May 2019, at: bit.ly/1Nom1V7.
- 15 Interview with Bojan Glamočlija, Director, SMAC, in Geneva, 14 February 2020.
- 16 Email from Slađana Košutić, SMAC, 6 April 2017; interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017; and 2018 Article 5 deadline Extension Request.
- 17 2018 Article 5 deadline Extension Request, p. 9; APMBC Article 7 Report (covering 2018), Form C; and email from Slađana Košutić, SMAC, 26 March 2019.
- 18 APMBC Article 7 Report (covering 2019), Section 4; and Statement on Clearance, Fourth APMBC Review Conference, Oslo, 27 November 2019.
- 19 Interview with Bojan Glamočlija, SMAC, in Geneva, 14 February 2020; and Statement on Clearance, Fourth APMBC Review Conference, Oslo, 27 November 2019.
- 20 Interview with Bojan Glamočlija, SMAC, in Geneva, 14 February 2020; and Statement on Clearance, Fourth APMBC Review Conference, Oslo, 27 November 2019; APMBC Article 7 Report (covering 2019), Section 4; and email from Slađana Košutić, SMAC, 18 June 2020.
- 21 Email from Slađana Košutić, SMAC, 23 April 2020.
- 22 Ibid.
- 23 Ibid.
- 24 Ibid.
- 25 Ibid.
- 26 Ibid.
- 27 2018 Article 5 deadline Extension Request, p. 16; email from Slađana Košutić, SMAC, 26 March 2019; and interview with Bojan Glamočlija, SMAC, in Geneva, 14 February 2020.
- 28 Interview with Bojan Glamočlija, SMAC, in Geneva, 14 February 2020.
- 29 Email from Slađana Košutić, SMAC, 26 March 2019.
- 30 Email from Slađana Košutić, SMAC, 12 April 2018.
- 31 SMAC, "Mine Situation, November 2019", accessed 18 February 2020, at: bit.ly/1Nom1V7; and APMBC Article 7 Report (covering 2019), Section 4.
- 32 Interview with Branislav Jovanović, SMAC, in Dubrovnik, 10 September 2015.
- 33 Email from Slađana Košutić, SMAC, 6 April 2017.
- 34 Interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017.
- 35 Email from Slađana Košutić, SMAC, 23 April 2020.
- 36 Interview with Jovica Simonović, SMAC, in Geneva, 18 February 2016.
- 37 Ibid.
- 38 Email from Slađana Košutić, SMAC, 23 April 2020.
- 39 Second APMBC Article 5 deadline Extension Request (2018), p. 18.
- 40 Email from Slađana Košutić, SMAC, 23 April 2020.
- 41 Interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017; and Second APMBC Article 5 deadline Extension Request (2018), p. 18.
- 42 Email from Slađana Košutić, SMAC, 23 April 2020.
- 43 Ibid.
- 44 Email from Slađana Košutić, SMAC, 6 March 2019.
- 45 Email from Slađana Košutić, SMAC, 23 April 2020.
- 46 Email from Slađana Košutić, SMAC, 6 March 2019.
- 47 Email from Slađana Košutić, SMAC, 23 April 2020.
- 48 Second APMBC Article 5 Extension Request (2018), p. 33.
- 49 Email from Slađana Košutić, SMAC, 23 April 2020.
- 50 Email from Slađana Košutić, SMAC, 26 March 2019.
- 51 Email from Slađana Košutić, SMAC, 9 September 2020.
- 52 Email from Slađana Košutić, SMAC, 23 April 2020.
- 53 Email from Slađana Košutić, SMAC, 23 April 2020.
- 54 Email from Slađana Košutić, SMAC, 18 June 2020.

RECOMMENDATIONS FOR ACTION

- South Sudan should accede to the Convention on Cluster Munitions (CCM) in line with the decision taken by the Council of Ministers announced in September 2017.
- South Sudan should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- South Sudan should revise survey requirements for CMR-contaminated areas in its national mine action standards to ensure the production of more accurate polygons.
- South Sudan should increase its financial support for mine action operations. Greater assistance from the government and international partners should be provided to the National Mine Action Authority (NMAA) to strengthen its capacity to develop and implement effective policies to address explosive ordnance.

UNDERSTANDING OF AP MINE CONTAMINATION

At the end of 2019, South Sudan had a total of just over 141 hazardous areas with a total size of 6.4km² contaminated with CMR, of which 5.5km² was confirmed hazardous area (CHA) and 0.9km² was suspected hazardous area (SHA).¹ Seven of South Sudan's former ten states have areas suspected to contain CMR (see Table 1), with Central and Eastern Equatoria remaining the most heavily contaminated. This is an increase from the just over 5.3km² across 123 hazardous areas contaminated with CMR at the end of 2018.²

Table 1: Cluster munition-contaminated area by state (at end 2019)³

State	No. of CHAs	Area of CHA (m ²)	No. of SHAs	Area of SHA (m ²)	Total CHAs/SHAs	Total area (m ²)
Central Equatoria	38	1,634,952	3	544,570	41	2,179,522
Eastern Equatoria	74	3,445,849	3	186,927	77	3,632,776
Jonglei	4	50,460	2	0	6	50,460
Upper Nile	4	133,067	0	0	4	133,067
Warrap	1	33,946	0	0	1	33,946
West Bahr El Ghazal	2	45,277	0	0	2	45,277
Western Equatoria	9	150,285	1	175,698	10	325,983
Totals	132	5,493,836	9	907,195	141	6,401,031

In 2017, the United Nations Mine Action Service (UNMAS) initiated a review of the national Information Management System for Mine Action (IMSMA) database and consequently initiated a process of targeted re-survey aimed at better defining the estimated size of SHAs. Further re-survey of CMR-contaminated areas is required, but these areas cannot be accessed due to insecurity. It is planned that manual clearance teams will carry out re-survey once the security situation allows.⁴

South Sudan's national mine action programme has greatly improved the accuracy of estimates of explosive ordnance contamination. The total estimate of mine, CMR, and other explosive remnants of war (ERW) contamination remaining in the country decreased from nearly 89km² at the end of 2017 to 24.6km² at the end of 2019.⁵ Despite continued land release, however, CMR contamination has increased over that time as a review of existing records in the database and re-survey resulted in three main changes that have proved especially significant with regard to CMR contamination: a number of existing task records had been wrongly recorded and were re-classified as CMR-contaminated areas; several overly conservative estimates of existing CHAs in the database were increased to better reflect the actual extent of contamination; and previously unrecorded areas containing CMR were added to the database.⁶

In 2019, 41 hazardous areas covering a total of 1,998,915m² of previously unrecorded CMR contamination was added to South Sudan's information management database. In addition, there was an expansion by 2,734,216m² of existing hazardous areas which had been recorded in the database but the estimates of size were overly conservative and so they were increased to better reflect the expected true extent of contamination.⁷ This means that despite nearly 3.7km² of land release in 2019 the amount of contamination increased by 1.1km² from the end of the previous year.

Cluster munitions were used during the decade-long war between Sudan and the SPLA/M that ended in 2005. From 1995 to 2000, prior to South Sudan's independence, Sudanese government forces are believed to have air dropped cluster munitions sporadically in southern Sudan.

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

South Sudan has a significant problem with mines and especially ERW, resulting from large-scale use of explosive weapons during armed conflicts in 1955–72 and 1983–2005 (see Mine Action Review's *Clearing the Mines 2020* report on South Sudan for further information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The South Sudan Demining Authority (SSDA)—since renamed the NMAA—was established by presidential decree in 2006 to act as the national agency for planning, coordination, and monitoring of mine action in South Sudan.⁸ There is no national mine action legislation in place.⁹

In 2011, UN Security Council Resolution 1996 tasked UNMAS with supporting South Sudan in demining and strengthening the capacity of the NMAA. UNMAS (with the NMAA) has been overseeing mine action across the country through its main office in Juba, and sub-offices in Bentiu, Bor, Malakal, and Wau. Together, UNMAS and the NMAA accredit, task, monitor, and evaluate mine action organisations; conduct route verification and clearance; provide escorts for convoys on high-threat routes to enable the delivery of humanitarian assistance; and collect data and map hazardous areas.¹⁰

While it is planned that the NMAA will eventually assume full responsibility for all mine action activities, according to UNMAS the NMAA continued to face serious financial and technical limitations preventing it from doing so effectively in 2019. It requires substantial resources and capacity building assistance if it is to manage the mine action programme.¹¹

UNMAS, mine action operators, and South Sudanese government departments are providing capacity development to NMAA and other national mine action organisations in a project that runs from January 2019 to December 2020. The objectives are to develop the managerial and operational capacity in key functional and technical areas to enable national authorities to assume long-term coordination and policy-making roles in mine action; and to strengthen the capacity of the NMAA to plan and monitor all aspects of mine action, in support of South Sudan's obligations under the Anti-Personnel Mine Ban Convention (APMBC). It is planned that NMAA staff will attend training

in administration and management, land release, quality management, and gender equality and mainstreaming. In addition, a resource mobilisation strategy will be developed along with the creation of an explosive ordnance disposal (EOD) response capacity to manage residual contamination.¹²

UNMAS and Danish Demining Group (DDG) are the co-coordinators of the mine action sub-cluster. The sub-cluster coordinates with the national- and state-level Inter-Cluster Working Groups. This enables information to be shared on mines and unexploded ordnance (UXO), for UN agencies and non-governmental organisations (NGOs) to inform mine action actors about their own priority locations for clearance; and for information on mines and UXO to be integrated into the annual Humanitarian Needs Overview and the Humanitarian Response Plan.¹³

In 2019, the Government of South Sudan funded the costs of NMAA staff salaries and its sub-offices across the country, Malakal, Wau, and Yei. As at March 2020, the Malakal and Yei offices were suspended due to the security situation.¹⁴ The NMAA did not, however, provide any funding for survey or clearance. The government's total support was reported as US\$75,000 for the year.¹⁵

In South Sudan's 2020 APMBC Article 5 deadline extension request, it is estimated to cost US\$116.9 million to complete all clearance by July 2026, although when costs are broken down by year the total amounts to \$128.5 million.¹⁶ In 2019, South Sudan received more than US\$41 million for mine action which exceeds the costs needed if current levels of support are maintained. It is worth noting, however, that much of the funding received by UNMAS, which on average has contributed around 75% of all sector funding, is used to support the UN Mission in South Sudan (UNMISS).¹⁷

GENDER AND DIVERSITY

South Sudan's second national mine action strategy for 2018–22 includes a section on gender, focusing on how different gender and age groups are affected by mines and ERW and have specific and varying needs and priorities. Guidelines on mainstreaming gender considerations in mine action planning and operations in South Sudan are also incorporated in the strategy, including on the collection of data disaggregated by sex and age.¹⁸ UNMAS reported that the programme was also implementing the UN Gender Guidelines for Mine Action, monitored by a gender focal point.¹⁹

South Sudan's National Technical Standards and Guidelines (NTSGs) contain provisions requiring all community liaison teams to tailor activities on the basis of the gendered needs of beneficiaries, and to address the specific risks faced by women and girls.²⁰ All teams are reportedly gender balanced in composition and trained to be inclusive, for example by ensuring outreach through non-technical survey and risk education is done separately for different age and gender groups, and taking local cultural practices into consideration.²¹ At the same time, UNMAS reported that task prioritisation was predominantly dependent on security and that resources were concentrated on tasks within limited geographical areas rather than on the basis of gender needs.²² Ethnic identity is taken into account within survey and clearance teams to ensure safe access and acceptance by the respective local communities.²³

In 2019–20, UNMAS was providing workshops for the NMAA and mine action partners on gender equality, gender-based violence (GBV), and gender mainstreaming programming in mine action with the aim of GBV prevention practices

being mainstreamed in mine action and there being equal opportunity in decision making regardless of gender.²⁴ As at July 2020, these had not yet happened.²⁵

UNMAS has said there is equal access in employment opportunities for qualified men and women in survey and clearance teams across the organisations operating in South Sudan.²⁶ However, redressing the gender balance is a long-term challenge and is dependent on whether new vacancies arise. In 2019, however, only 7% of staff in operational roles were women, and women accounted for 5% of managerial or supervisory positions among international staff positions, while no women were occupying managerial positions among the national staff.²⁷

All of the community liaison teams within Mines Advisory Group (MAG) are mixed gender and MAG reports that it consults with all affected community members, including women and children. MAG also holds women-only focus groups to ensure that their voices are heard. MAG also aims to recruit team members from the more than 60 ethnic groups within South Sudan and tries to ensure that at least one team member speaks the local language of the planned area of deployment. As at October 2019, approximately 25% of all operational roles within MAG were held by women. This follows a concerted effort by MAG to increase the number of women in operational roles. There is one international staff member who holds a senior managerial position within MAG who is female but none of the female national staff members holds a managerial position, although women are employed as national staff at a supervisory level.²⁸

INFORMATION MANAGEMENT AND REPORTING

A comprehensive review of all data in South Sudan's IMSMA database began in 2018, along with re-survey of recorded SHAs and CHAs thought to be exaggerated or erroneously recorded. Through the database review it was found that past efforts to upgrade the IMSMA software package led to serious data loss, which inhibited efforts to present an entirely accurate record of the history of mine action in South Sudan. The ongoing database review has resulted in significant gains in the understanding of mine and ERW contamination. UNMAS informed Mine Action Review that, wherever possible, the database disaggregates mined areas, CMR-contaminated areas, and other ERW-contaminated areas, including spot tasks.²⁹

In 2020, despite not having acceded to the CCM, South Sudan submitted a voluntary Article 7 report for the first time, covering 2019.

PLANNING AND TASKING

South Sudan's most recent National Mine Action Strategy 2018–2022, developed with support from the Geneva International Centre for Humanitarian Demining (GICHD) and using funding from Japan, was officially launched in September 2018.³⁰ A mid-term strategic review of the plan, goals, and objectives was conducted in January 2020.³¹ According to UNMAS, the strategy has three strategic goals with related targets:³²

GOAL 1:

Advocacy and communication of South Sudan's mine/ERW problem continues through national and international awareness-raising and adoption and implementation of international conventions to facilitate a mine-/ERW-free South Sudan.

GOAL 2:

The extent of mine/ERW contamination is clarified and confirmed and the problem addressed through appropriate survey and clearance, ensuring safe land is handed back to affected communities for use.

GOAL 3:

Safe behaviour is promoted among women, girls, boys, and men to reduce mine/ERW accidents and promote safe livelihood activities.

UNMAS operations staff generate an annual operational clearance plan where priority tasks are identified.³³ According to UNMAS, the operational focus for 2019–20 was on further clarifying contamination remaining in the database, with re-survey of hazards thought to be exaggerated in size.³⁴

In its 2020 APBMC Article 5 deadline extension request South Sudan presents a work plan to 2026, split by region. South Sudan estimates that the overall clearance requirement for mechanical clearance teams is 2.88km² of cluster strike area. In addition, there will be a requirement to clear 141 cluster strikes and 30 battle areas extending over 6.4km².³⁵ These numbers are slightly different from the figures presented in the annual clearance tables with nearly 3km² of mechanical clearance of CMR and 5.02km² of manual clearance although this does include a contingency to clear an additional 10% of contaminated area as a margin of safety. It is also unclear from the table how much of this clearance refers to CMR and how much to other UXO.³⁶

Table 2: Planned mechanical and manual clearance of CMR- and UXO-contaminated area³⁷

Year	No. of teams	Area cleared (m ²)	Area remaining (m ²)	Tasks remaining
2020	6 manual 2 mechanical	264,000 manual 176,000 mechanical	6,933,471	165
2021	6 manual 2 mechanical	1,056,000 manual 704,000 mechanical	5,173,471	123
2022	6 manual 2 mechanical	1,056,000 manual 704,000 mechanical	3,413,471	81
2023	5 Manual 2 Mechanical	880,000 manual 704,000 mechanical	1,829,471	44
2024	5 Manual 2 Mechanical	880,000 manual 704,000 mechanical	245,471	7
2025	5 Manual	880,000 manual	-634,529	-13

According to its 2019 APBMC Article 5 deadline extension request to be considered by the Eighteenth Meeting of States Parties in November 2020, South Sudan intends to address all contamination from anti-personnel mines, anti-vehicle mines, CMR, and other ERW by its requested 2026 APBMC Article 5 deadline. To that end, aside from those tasks where specific humanitarian interventions are planned, the intention is to be pragmatic in the sequencing of tasks and to deploy clearance teams through a prioritisation process that aims to balance security, logistical requirements, and concentration of effort. South Sudan believes that this combination will lead to the most efficient clearance that allows for optimal monitoring of clearance efforts.³⁸

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

South Sudan's NTSGs, which outline the technical requirements expected of all demining operators working in South Sudan, are adapted from the International Mine Action Standards (IMAS). The NTSGs are annually reviewed and revised by UNMAS and the implementing partners and then approved by the NMAA.³⁹ These standards and guidelines also contain provisions specific to CMR survey and clearance.⁴⁰

In 2019, revisions were made to the NTSGs for Animal Detection Systems, Site Preparation, Marking, Quality Management, and Medical Procedures to keep them in line with changes to IMAS. An NTSG on "Stop-Operations Policy" was also introduced. This policy mandates that any party can and should suspend an operation whenever it believes a demining situation or operation is becoming unsafe.⁴¹ The NTSG amendments were made in consultation with the implementing partners.⁴² Amendments were also made to the NTSGs for Survey, Battle Area Clearance, and Land Release. The revision of the NTSG for Battle Area Clearance included the redefinition of the minimum clearance depth for CMR; survey and assessment of the cluster munition strike's footprint related to the physical evidence and size of the polygon; and quality management of CMR clearance adding layers of Quality Control (QC) and a comprehensive recording system.⁴³

However, both UNMAS and MAG have reported that a significant number of initial survey reports of CMR-contaminated areas have underestimated the extent of the contamination. MAG reported that areas were often recorded based on the minimum amount of clearance that would be required to comply with the NTSGs, which require a 50 metre fade-out. In MAG's experience, however, the actual CMR-contaminated area has often proved to be significantly larger, making it difficult to accurately plan for the time and resources needed to address each task.

MAG begins CMR clearance with the expectation that the task area will reach at least 60,000m² and at times has encountered CMR tasks that had to be expanded by more than 100,000m² compared to the original estimate. It further reported that the fade-out requirements of the NTSGs sometimes resulted in handover of cleared land while simultaneously creating a new "hazardous area" comprising the fade-out distance.⁴⁴ UNMAS reported that often in a recorded strike area, multiple cluster munition canisters are found, with the consequence that the overall contaminated area extends well beyond an expected standard footprint.⁴⁵

UNMAS noted that the NTSGs require all mine action teams to conduct regular internal quality assurance (QA), along with QC sampling of 10% of each area cleared. UNMAS conducted additional external QA through visits to each clearance task in 2018, as well as upon the completion of a clearance task.⁴⁶ As part of the capacity development project of the NMAA from 2019 to 2020, 30 QA officers were due to receive training in quality management through workshops and field placements with the aim of the NMAA taking ownership for QA of mine action operations.⁴⁷

OPERATORS AND OPERATIONAL TOOLS

In 2019, UNMAS reported that 29 teams from 4 organisations conducted CMR survey and clearance tasks: two international demining non-governmental organisations (MAG and DanChurchAid (DCA)), and two commercial companies (G4S Ordnance Management (G4S) and The Development Initiative (TDI)). It estimated the number of operational personnel involved in CMR survey and clearance at 224 during the year. The clearance teams (see Table 3) were not deployed exclusively on CMR tasks, they also conducted EOD, manual mine clearance and/or non-technical survey. In addition, G4S deployed four teams totalling 28 personnel solely for non-technical survey.⁴⁸

Table 3: Operational clearance capacities deployed in 2019⁴⁹

Operator	Manual clearance teams	Total clearance personnel	Mechanical assets
G4S	2	20	0
G4S	6	36	0
TDI	8	64	0
MAG	5	40	0
MAG	2	20	2
DCA	2	16	0
Totals	25	196	2

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2019

A total of a nearly 3.7km² of CMR contaminated area was released through survey and clearance in 2019; of which 0.36km² was cancelled through non-technical survey, 0.01km² was reduced through technical survey, and 3.29km² was cleared.

SURVEY IN 2019

In 2019, a total of 359,388m² was cancelled through non-technical survey in Eastern Equatoria and Western Equatoria, see Table 4.⁵⁰ This is an increase from the 10,400m² of suspected CMR contamination cancelled through non-technical survey in Jonglei state by G4S in 2018.⁵¹

In addition, 13,614m² was reduced through technical survey in Central Equatoria, Eastern Equatoria, Western Equatoria and Unity, see Table 5.⁵² This is a decrease from the 147,300m² reduced by technical survey the year before.⁵³

Table 4: Cancellation through non-technical survey in 2019⁵⁴

State	Operator	Area cancelled (m ²)
Eastern Equatoria	G4S	344,357
Western Equatoria	G4S	15,031
Total		359,388

Table 5: Reduction through technical survey in 2019⁵⁵

State	Operator	Area reduced (m ²)
Central Equatoria	G4S	533
Eastern Equatoria	G4S	3,729
Eastern Equatoria	TDI	61
Unity	TDI	1,889
Western Equatoria	G4S	7,402
Total		13,614

CLEARANCE IN 2019

In 2019, a total of nearly 3.3km² of CMR-contaminated area was cleared with 2,586 submunitions destroyed (see Table 6).⁵⁶ This is a decrease of 35% from the 5.1km² cleared in 2018.⁵⁷

Table 6: CMR clearance in 2019

State	Operator	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
Central Equatoria	G4S	25,233	1	67
Central Equatoria	MAG	1,920,222	1,880	48
Eastern Equatoria	DCA	87,420	86	2
Eastern Equatoria	G4S	274,107	143	18
Eastern Equatoria	MAG	129,578	77	0
Eastern Equatoria	TDI	323,282	169	7
Jonglei	G4S	212,283	129	9
Jonglei	MAG	97,677	57	0
Unity	TDI	9,500	1	0
Western Bahr El Ghazal	TDI	79,477	19	0
Western Equatoria	G4S	128,108	24	0
Totals		3,286,887	2,586	151

In addition, three CMR were destroyed during anti-personnel mine clearance, 57 submunitions were destroyed during clearance of anti-vehicle mined area and 87 submunitions were destroyed during EOD spot tasks.⁵⁸

According to UNMAS, the significant decrease in CMR clearance output in 2019 was due to the impact of widespread violence in Equatoria, which has the highest concentration of CMR contamination and where the National Salvation Front was particularly active.⁵⁹

PROGRESS TOWARDS COMPLETION

South Sudan is not yet a State Party to the CCM and therefore does not have a specific clearance deadline under Article 4. Nonetheless, South Sudan has obligations under international human rights law to clear CMR as soon as possible.

South Sudan has announced its intention to accede to the CCM, which is also a specific objective in the National Mine Action Strategic Plan 2018–2022.⁶⁰ In May 2019, UNMAS reported that documents relating to South Sudan's accession to the Convention were under review by the national parliament.⁶¹ As at September 2020, the legislation was still before parliament for adoption.⁶²

Previously, primarily due to the ongoing conflict, it was impossible to predict when South Sudan might complete clearance of CMR, nor even assess the true extent of contamination.⁶³ However, with improvements in the security situation, progress in land release of CMR-contaminated areas, and a comprehensive database review, in 2019, the situation in South Sudan began to look a lot more positive.

According to South Sudan's 2020 APMB Article 5 deadline extension request, it is expected that South Sudan will complete clearance of all CMR-contaminated areas by the end of 2025. In addition, the extension request clearly sets out the primary assumptions and risk factors in the implementation of land release targets which is contingent on having access to contaminated areas and no resumption of fighting. Logistical challenges will also need to be overcome due to the poor state of South Sudan's infrastructure and the effects of the seasonal rains, which mean that clearance in much of the country is only possible for eight months of the year given widespread flooding. Furthermore, the methodology previously used to clear roads was flawed as several mines have recently been discovered on roads that had been declared safe resulting in the need for re-clearance. This has diverted resources from clearance of CMR.⁶⁴

South Sudan has also been affected by the COVID-19 outbreak, which has led the government to ban all public gatherings and introduce social distancing and lockdown measures. As at April 2020, operators had stood down teams, which will undoubtedly impact on survey and clearance output.⁶⁵

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- 1 Voluntary Article 7 Report (covering 2019), Form F; and email from Richard Boulter, Senior Programme Manager, United Nations Mine Action Service (UNMAS), 6 September 2020..
- 2 Email from Ayaka Amano, Associate Programme Officer, UNMAS, 2 May 2019.
- 3 Voluntary Article 7 Report (covering 2019), Form F; and email from Richard Boulter, UNMAS, 6 September 2020.
- 4 Voluntary Article 7 Report (covering 2019), Form I.
- 5 Email from Ayaka Amano, UNMAS, 2 May 2019; 2020 APMBBC Article 5 deadline extension request, p. 27.
- 6 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 7 Email from Richard Boulter, UNMAS, 6 September 2020.
- 8 "South Sudan De-Mining Authority", undated, at: bit.ly/2Y5Eb4o.
- 9 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 10 UNMAS, "Mine Action Portfolio 2019".
- 11 Interview with Richard Boulter, UNMAS at the NDM-UN23 in Geneva, 14 February 2020; and email, 30 May 2019; and emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.
- 12 UNMAS, "Mine Action Portfolio 2019".
- 13 Ibid.
- 14 2020 Article 5 deadline Extension Request, p. 20.
- 15 Article 7 Report (covering 2019), Form 4.
- 16 2020 Article 5 deadline extension request, p. 65.
- 17 Ibid., pp. 20–21.
- 18 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.
- 19 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 20 Ibid.
- 21 Ibid.
- 22 Ibid.
- 23 Email from Richard Boulter, UNMAS, 8 July 2020.
- 24 UNMAS "Mine Action Portfolio 2019".
- 25 Email from Richard Boulter, UNMAS, 8 July 2020.
- 26 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 27 Email from Richard Boulter, UNMAS, 8 July 2020.
- 28 Emails from Katie Shaw, Programme Officer, MAG, 26 April 2019 and 29 June 2020.
- 29 Email from Ayaka Amano, UNMAS, 2 May 2019; and 2020 Article 5 deadline extension request, p. 9.
- 30 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 31 "South Sudan – Achieving Article Five compliance, and Delivering a Long-Term Solution", NDM-UN23, 12 February 2020.
- 32 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018; and Richard Boulter, UNMAS, 6 June 2018.
- 33 Email from Richard Boulter, UNMAS, 8 July 2020.
- 34 Email from Richard Boulter, UNMAS, 22 July 2019.
- 35 2020 Article 5 deadline Extension Request, p. 60.
- 36 2020 Article 5 deadline Extension Request, pp. 63–64.
- 37 Ibid.
- 38 2020 Article 5 deadline extension request, p. 64.
- 39 Article 7 Report (covering 2019), Form 4.
- 40 Email from Robert Thompson, UNMAS, 21 April 2016; and responses to questionnaire, 30 March 2015; and email from Augustino Seja, NPA, 11 May 2015.
- 41 Email from Richard Boulter, UNMAS, 15 July 2020.
- 42 Email from Richard Boulter, UNMAS, 8 July 2020.
- 43 Email from Richard Boulter, UNMAS, 6 September 2020.
- 44 Email from Katie Shaw, MAG, 26 April 2019.
- 45 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018. According to UNMAS, the number of cluster munition strikes recorded is thought to be accurate, but the size of the strike area is likely greater than currently recorded estimates.
- 46 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 47 UNMAS, "Mine Action Portfolio 2019".
- 48 Email from Richard Boulter, UNMAS, 6 September 2020.
- 49 Ibid.
- 50 Voluntary Article 7 Report (covering 2019), Form F.
- 51 Ibid. It reported that another area suspected to contain CMR of unreported size was also cancelled by G4S in Western Equatoria state.
- 52 Ibid.
- 53 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 54 Email from Richard Boulter, UNMAS, 6 September 2020.
- 55 Email from Richard Boulter, UNMAS, 6 September 2020.
- 56 Ibid.
- 57 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 58 Email from Richard Boulter, UNMAS, 6 September 2020.
- 59 Ibid.
- 60 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.
- 61 Email from Ayaka Amano, UNMAS, 2 May 2019. On 5 September 2017, at the CCM 7th Meeting of States Parties, South Sudan announced its intention to accede to the Convention, stating that its Council of Ministers had taken a decision unanimously on 25 August 2017 to "fully accede" and comply with the CCM. Statement of South Sudan, CCM 7th Meeting of States Parties, Geneva, 5 September 2017.
- 62 Email from Richard Boulter, UNMAS, 6 September 2020.
- 63 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 64 2020 Article 5 deadline Extension Request, pp. 47–49.
- 65 APMBBC Article 7 Report (covering 2019), Form 4.

RECOMMENDATIONS FOR ACTION

- Sudan should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Sudan should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- Sudan should make every effort to address the last remaining area suspected to contain CMR as soon as possible and should elaborate a work plan with how this will be achieved.
- Sudan should ensure that reporting disaggregates submunitions from other unexploded ordnance (UXO) and that mine action data is recorded and reported according to International Mine Action Standards (IMAS) land release terminology.

UNDERSTANDING OF AP MINE CONTAMINATION

As at April 2020, Sudan's National Mine Action Centre (NMAC) informed Mine Action Review that only one area suspected to contain CMR contamination remained in Sudan.¹ The NMAC reported that the area, with an unknown size in South Kordofan state, was located in an area not under government control.²

The NMAC previously reported that at the end of 2017, a total of two areas suspected to contain CMR contamination remained to be addressed in Sudan, the area in South Kordofan and another in West Kordofan.³ In June 2018, NMAC informed Mine Action Review that it had deployed a team to address the remaining hazardous area in West Kordofan, located in Aghabish village, Lagawa locality, which it later reported was cancelled during the year as no evidence of CMR was found.⁴

In 2017, NMAC, which assumed full national ownership for implementing mine action activities upon the United Nations Mine Action Office's (UNMAO's) closure in June 2011, reported that of the nine open areas reported by UNMAO in 2011, seven were cleared in 2011–13.⁵ In March 2018, NMAC informed Mine Action Review that the size of the seven areas cleared during this period totalled 15,318m² and that 13 PM-1 submunitions were found and destroyed during clearance.⁶ NMAC has not reported any survey or clearance of CMR since 2013. It stated that no new CMR contamination was recorded in 2016–19.⁷

In the 1990s, Sudanese government forces are believed to have sporadically air dropped cluster munitions in its civil war with the Sudan People's Liberation Movement/Army (SPLM/A). Government forces were reported as having used several types of cluster munitions, including Spanish-manufactured HESPIN 21; US-manufactured M42 and Mk118 (Rockeye), and a Brazilian copy; Chinese Type-81 dual-purpose improved conventional munitions (DPICM); Chilean-made PM-1; and Soviet-manufactured PTAB-1.5 and AO-1-SCh submunitions. In 2012 and 2015, use of cluster munitions was recorded in five separate attacks on villages in South Kordofan state. Each attack involved air-dropped RBK-500 cluster munitions containing AO-2.5RT submunitions.⁸

In April 2017, the African Union–United Nations Mission in Darfur (UNAMID) reported the presence of two AO-1-SCh submunitions in North Darfur (at Al Mengara village in Al Liet locality). The villagers reported that the bombs were dropped in 2008, had been identified by UNAMID at that time, and that the military had stated that they would dispose of the items.⁹ The Sudanese Armed Forces Engineers destroyed the items in February 2018 and no further CMR were reported or identified.¹⁰

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Sudan also has a significant problem with anti-personnel mines, anti-vehicle mines, and UXO, primarily as a result of the more than 20 years of civil war that led to the Comprehensive Peace Agreement in 2005 and South Sudan's independence in July 2011 (see Mine Action Review's *Clearing the Mines 2020* report on Sudan for further information).

Since South Sudan's independence, new conflicts in Abyei and in Blue Nile and South Kordofan states have resulted in increased UXO contamination in Sudan.¹¹ The extent of mine and ERW contamination within the disputed area of Abyei and the Safe Demilitarized Border Zone (SDBZ) between Sudan and South Sudan is unknown due to security and political issues.¹²

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Sudanese National Mine Action Authority (NMAA) and the NMAC manage Sudan's mine action programme. Upon the independence of South Sudan, the NMAC assumed full ownership of national mine action with responsibility for coordinating and supervising the implementation of all mine action activities, including quality assurance (QA), accreditation, and certification of clearance operators.

After starting an emergency programme in 2002, UNMAS re-established activities in Sudan in 2015, following an invitation from the Sudanese Government, in an advisory and support capacity.¹³ As part of its mandate, UNMAS provides organisational and individual capacity development to the NMAC.¹⁴

Sudan is part of the Arab Regional Cooperation Programme (ARPC) and as part of this programme, which is coordinated by the Geneva International Centre for Humanitarian Demining (GICHD), the NMAA attend regional trainings and workshops. In December 2019, the NMAA attended the ARPC annual conference where they discussed and approved recently translated IMAS into Arabic and shared experiences of their own national mine action standards (NMAS).¹⁵

In 2019, the Government of Sudan contributed a total of US\$2 million to the running costs of NMAC and for demining activities. It has consistently funded the national mine action programme at this level for the past four years.¹⁶ In addition, international donors contributed US\$5.84 million through UNMAS for mine action in Sudan. UNMAS reported that, in 2020, a total of \$15.8 million would be required to meet mine action needs in the country, including demining in South Kordofan and Blue Nile states and ERW response in Darfur.¹⁷

In 2018, Sudan reported that as a result of enhanced cooperation, both nationally and internationally, in particular stemming from a meeting on Sudan of the APMBC's Committee on the Enhancement of Cooperation and Assistance's "individualised approach" initiative in 2017, a number of positive developments had resulted. This initiative, Sudan reported, alongside nationally convened mine action events and donor field visits to mine-affected areas, had resulted in an increase in earmarked funds to the mine action programme.¹⁸

GENDER AND DIVERSITY

In 2019, NMAC reported that it has a gender and diversity policy in place and that gender is mainstreamed in the national mine action strategic plan for 2019–23 and in the national mine action standards. It stated that under those standards, all survey and community liaison teams are to be gender balanced, and that women and children are consulted during survey and community liaison activities. It said that gender is also taken into account in the prioritisation, planning, and tasking of survey and clearance, as per the national standards and the new standard IMSMA forms.¹⁹

Mine action data are disaggregated by sex and age.²⁰ UNMAS reported working with NMAC and implementing partners to improve this aspect of mine action reporting and information management because sex and age disaggregated data of land release beneficiaries were not being captured in IMSMA.²¹

The NMAC says it always encourages women to apply for employment in the national programme, whether at the office level or in the field. Positively, it reported that almost 40% of NMAC staff employed at the managerial or supervisory levels are women and 50% of non-technical survey teams are female. The first female deminer has also been employed but the NMAC acknowledged that there are obstacles to hiring women due to "local customs and traditions".²² UNMAS reported that, as at May 2020, around 55% of the new non-technical survey teams are female. One female deminer started in late 2019, and it is hoped to increase the number of female deminers in the future.²³

INFORMATION MANAGEMENT AND REPORTING

As at April 2020, NMAC informed Mine Action Review that it was using the IMSMA legacy version in parallel a newer version: IMSMA New Generation (NG).²⁴ In 2018, NMAC began a process of upgrading the IMSMA software to the newer NG version, with assistance from the GICHD. Significant efforts to correct errors in the database were also undertaken.²⁵ In 2019, IMSMA training was delivered to the suboffices and operators on the new reporting system and reporting forms.²⁶

PLANNING AND TASKING

In May 2019, NMAC reported that a new national mine action strategic plan for 2019–23 had been finalised and was awaiting approval. The plan aims to fulfil Sudan's APMBBC obligations, and was developed in coordination with the GICHD to replace its previous national strategy for 2016–19.²⁷ NMAC stated that detailed annual work plans had been developed for each year under the new strategic plan.²⁸ As at April 2020, the strategic plan was still awaiting approval.²⁹

In Sudan's 2018 APMB Article 5 deadline extension request there was no specific mention of remaining CMR or plans for survey and clearance of CMR-contaminated areas. The extension request did contain a detailed work plan with annual survey and clearance projections on a state-by-state basis with a total planned release for all types of ordnance of 224 hazardous areas with a size of 26.5km² by 1 April 2023.³⁰ In 2020, in accordance with the terms of its latest APMB Article 5 deadline extension, Sudan submitted an updated work plan for 1 March 2020–31 March 2023, though again this make no mention of CMR.³¹ Sudan reported to Mine Action Review that clearance of remaining CMR contamination would be possible by 2021 if there was a change in the security situation and the last known registered cluster munition-contaminated area was under Sudanese Government control.³²

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

In May 2019, NMAC reported that a review of Sudan's NMAS had been completed and the revised standards were awaiting endorsement.³³ As at August 2020, this was still the situation.³⁴

During 2019, NMAC completed 46 accreditations and 33 QA visits. During 2019, the accreditation of Global Aid Hand was reviewed and survey and explosive ordnance disposal (EOD) were added to their existing explosive ordnance risk education (EORE) accreditation.³⁵

OPERATORS AND OPERATIONAL TOOLS

In 2019, no international NGOs were demining in Sudan. National operators are JASMAR for Human Security (JASMAR), National Units for Mine Action and Development (NUMAD), the Friends for Peace and Development Organization (FPDO), and Global Aid Hand.³⁶

Table 1: Operational clearance capacities deployed in 2019³⁷

Operator	Manual clearance teams (MCTs)/ Multi-task teams (MTTs)	Total deminers*	Dogs and handlers	Machines
FPDO	2 MCTS	16	0	0
NUMAD	4 MCTs	32	9 dogs & 3 handlers	0
	5 MTTs	20		
JASMAR	3 MTTs	12	0	0
Totals	14 teams	80	9/3	0

* Excluding team leaders, medics, and drivers.

Table 2: Operational survey capacities deployed in 2019³⁸

Operator	NTS teams	Total NTS personnel*	TS teams	Total TS personnel*
JASMAR	3	6	Clearance capacity is also technical survey capacity	
NUMAD	0	0		
Global Aid Hand	7	14		
Totals	10	20		

NTS = Non-technical survey TS = Technical survey

*Excluding team leaders, medics, and drivers

According to the NMAC, there was no change in operational capacity from 2018 to 2019 until November when additional non-technical survey capacity was deployed by JASMAR and Global Aid Hand.³⁹ According to UNMAS, the MCTs and MTTs were not only working on anti-personnel mine clearance but also on priority areas contaminated with anti-vehicle mines and ERW. This is because most of the anti-personnel mined areas are located in Sudan People's Liberation Movement-North (SPLMN)-controlled areas.⁴⁰ The clearance capacity was not all operational throughout the year with the FPDO deployed only until May 2019. In addition, two of the NUMAD MTTs were tasked with investigating residual risk in Kassala state, which was announced free from known mined areas and ERW in 2018. Some of the teams only became operational in October 2019 as the season in most of Sudan, especially in South Kordofan and Blue Nile states, runs from October to June the following year.⁴¹

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2019

There was no reported survey or clearance of CMR-contaminated areas conducted in 2019. In 2018, one recorded area of suspected CMR contamination in West Kordofan was cancelled by NUMAD after no evidence of cluster munitions was found in the area.⁴²

PROGRESS TOWARDS COMPLETION

Sudan is not a state party to the CCM and therefore does not have a specific clearance deadline under Article 4. Nonetheless, it has obligations under international human rights law to clear CMR as soon as possible.

In May 2017, NMAC informed Mine Action Review that Sudan was "with the spirit of the Convention on Cluster Munitions" and that the national authorities were aware of the convention and Sudan's current status as not yet having joined.⁴³ In April 2020, NMAC stated that there had been no developments with regard to Sudan's accession to the CCM in 2019.⁴⁴

The main impediment to mine action operations is the security situation and the lack of access to most of the known impacted communities in Blue Nile and South Kordofan states.⁴⁵ During 2019, access to South Kordofan and Blue Nile improved, which allowed for roads to be assessed and cleared opening access for humanitarian assistance and population movement. It is hoped that with the establishment of the transitional government and the onset of peace talks between government and opposition groups this may lead to a comprehensive nationwide peace agreement.

In June 2020, Sudan's transitional government and the head of one of the two factions of the rebel group, Sudan People's Liberation Movement-North (SPLM-N), signed a preliminary peace deal. The transitional government and rebel groups have until February 2021 to finalise a comprehensive deal.⁴⁶ This would improve accessibility for the mine action programme but, Sudan reports, it would also pose a challenge as roads and other routes will need to be cleared before people can move safely and humanitarian assistance can be provided and Sudan does not currently have the capacity to do this.⁴⁷

In addition, Sudan reported that obstacles to completion include: inadequate funding for mine action, outdated demining equipment that is not fit for purpose, poor infrastructure which also impedes access, and difficult climatic conditions.⁴⁸ A further significant impediment to progress is the lack of clearance capacity formerly provided by international operators. Sudan has made numerous requests for technical and logistical support and appeals for international operators to return.

1 Email from Hatim Khamis Rahama, Technical Advisor, NMAC, 9 April 2020.
2 Email from Hatim Khamis Rahama, NMAC, 1 May 2019; and interview in Geneva, 24 May 2019.
3 Email from Hatim Khamis Rahama, NMAC, 3 March 2018; and interview in Geneva, 24 May 2019. NMAC previously reported to Mine Action Review that each area had an estimated size of 1km². In May 2019, it clarified that this had been a reporting error.
4 Emails from Hatim Khamis Rahama, NMAC, 1 May 2019 and 14 June 2018.
5 Emails from Hatim Khamis Rahama, NMAC, 14 June 2017; and Ali Abd Allatif Ibrahim, NMAC, 18 May 2017. In June 2016, however, NMAC had reported that no CMR-contaminated areas were "recorded as remaining hazards to be cleared" and that no separate survey or clearance operations for CMR occurred in 2015 and claimed that no cluster munitions had been found in all mine action activities "to date". Email from Ahmed Elser Ahmed Ali, Chief of Operations, NMAC, 8 June 2016.
6 Email from Hatim Khamis Rahama, NMAC, 3 March 2018.
7 Emails from Hatim Khamis Rahama, NMAC, 1 May and 3 March 2018 and 9 April 2020; and from Ali Abd Allatif Ibrahim, NMAC, 18 May 2017.
8 See Cluster Munition Monitor, "Country Profile: Sudan: Cluster Munition Ban Policy", updated 23 August 2014.
9 Email from Dandan Xu, Associate Programme Management Officer, UNMAS, 12 July 2017.
10 Email from Colin Williams, Deputy Programme Manager, Ordnance Disposal Office (ODO), UNAMID, 1 June 2018.
11 Human Rights Watch, "Under Siege: Indiscriminate Bombing and Abuses in Sudan's Southern Kordofan and Blue Nile States", 6 December 2012; "Unexploded Ordnance Kill 13 People in South Kordofan", All Africa, 10 August 2013; and UN, "UNMAS Annual Report 2012", New York, August 2013, p. 10.
12 UNMAS, "2019 Portfolio of Mine Action Projects, Sudan".
13 UNMAS, "Sudan (excluding Darfur)", Updated March 2019, at: bit.ly/2Y3IDUg.
14 Email from Aimal Safi, UNMAS, 31 May 2020.
15 Email from Hayder AlShakeri, Programme Officer, GICHD, 13 August 2020.
16 APMBC Article 7 Report (covering 2019), Form F.
17 UNMAS, "Sudan (excluding Darfur)", Updated March 2019.
18 Statement of Sudan, APMBC 17th Meeting of States Parties, Geneva, 28 November 2018.

19 Emails from Hatim Khamis Rahama, NMAC, 9 April 2020; and from Aimal Safi, UNMAS, 31 May 2020.
20 Email from Hatim Khamis Rahama, NMAC, 9 April 2020.
21 Email from Aimal Safi, UNMAS, 31 May 2020.
22 Email from Hatim Khamis Rahama, NMAC, 1 May 2019 and 10 September 2020.
23 Email from Aimal Safi, UNMAS, 31 May 2020.
24 Email from Hatim Khamis Rahama, NMAC, 9 April 2020.
25 Emails from Ahmed Elser Ahmed Ali, NMAC, 9 May and 8 June 2016; and Third APMBC Article 5 deadline Extension Request, March 2018, pp. 37–38.
26 Email from Hatim Khamis Rahama, NMAC, 10 September 2020.
27 Emails from Hatim Khamis Rahama, NMAC, 1 May 2019 and 13 May 2018.
28 Email from Hatim Khamis Rahama, NMAC, 1 May 2019.
29 Email from Hatim Khamis Rahama, NMAC, 9 April 2020.
30 2018 Article 5 deadline Extension Request Detailed Narrative, 17 August 2018, Table 14, p. 18.
31 *Ibid.*, p. 21.
32 Emails from Hatim Khamis Rahama, NMAC, 9 April and 24 August 2020.
33 Emails from Hatim Khamis Rahama, NMAC, 1 May 2019 and 13 May 2018.
34 *Ibid.*, 9 April 2020.
35 Email from Aimal Safi, UNMAS, 11 August 2020.
36 Article 7 Report (covering 2019), Form F.
37 Email from Hatim Khamis Rahama, NMAC, 9 April 2020.
38 *Ibid.*
39 *Ibid.*
40 Email from Aimal Safi, UNMAS, 22 July 2020.
41 Email from Aimal Safi, UNMAS, 7 September 2020.
42 Email from Hatim Khamis Rahama, NMAC, 1 May 2019.
43 Email from Ali Abd Allatif Ibrahim, NMAC, 18 May 2017.
44 Email from Hatim Khamis Rahama, NMAC, 9 April 2020.
45 Sudan Multiyear Operational Plan 2020 to 2023, p. 14.
46 Al-Jazeera, "Sudan's government signs initial peace deal with rebel group", 25 June 2020, at: bit.ly/3192XoV.
47 Sudan Multiyear Operational Plan 2020 to 2023, p. 36.
48 *Ibid.*

KEY DEVELOPMENTS

Syria experienced multiple attacks with cluster munitions by pro-government forces in 2019. The United Nations Mine Action Service (UNMAS) reported that the government had agreed to the participation of international demining organisations in mine action.

RECOMMENDATIONS FOR ACTION

- Syria and Russia should immediately halt the use of cluster munitions.
- Syria should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Syria should apply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.

UNDERSTANDING OF CMR CONTAMINATION

Syria's civil war saw continued use of cluster munitions in 2019 and 2020, adding to what is already believed to be widespread CMR in addition to dense contamination by other explosive remnants of war (ERW), including conventional mines and those of an improvised nature (see Mine Action Review's *Clearing the Mines 2020* report on Syria for further information). The extent of contamination by any particular category of device is not known. The United Nations estimated in October 2019 that explosive ordnance contaminated more than 2,560 communities and 11.5 million people and had caused an average of 184 explosive incidents a day throughout the year.¹

Syrian government and Russian air forces intensively bombed Idlib governorate and other areas of north-west Syria during the first half of 2019, regularly using cluster munitions.² First responders cited by Human Rights Watch documented 10 attacks by pro-government forces in May 2019 using Uragan cluster munition rockets in north west Syria.³ The United Nations Commission of Inquiry monitoring Syria documented use of cluster munitions in a surface-to-surface missile attack by pro-government forces on a camp for displaced persons near the border with Turkey in November 2019.⁴ Pro-government forces struck a school in Idlib governorate with a missile armed with submunitions in January 2020 inflicting heavy civilian casualties⁵ and in February 2020 struck densely populated area of Idlib with what were believed to be URAGAN 9M27K-type cluster munitions fired from BM-30 "SMERCH" multiple-barrelled rocket launcher system.⁶ The Syrian Network for Human Right reported at least 24 attacks employing cluster munitions between September 2018 and April 2019, attributing 23 attacks to Syrian forces and one to Russian forces.⁷

Syrian Civil Defence (SCD) has reported clearing large numbers of unexploded submunitions over the past three years in Idlib governorate and to a lesser extent in Dar'a, Hama, and Quneitra over the past two years.⁸ SCD and other operators report encountering mainly Russian-made cluster munitions, including SHOAB-0.5, AO-2.5RT, 9N235, AO1-SCH, and PTAB-1M and 2.5M submunitions.⁹

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Syria does not have a national mine action authority or a national programme for survey and clearance. Mine action has been conducted by a wide range of organisations, largely determined by the forces controlling different regions.

In areas under government control, these have included mainly Russian and Syrian military engineers and civil defence organisations. International and national demining organisations conducted clearance in north-east Syria controlled by the Kurdish Syrian Democratic Forces. Turkey reported its security forces cleared mines and improvised explosive devices (IEDs) in areas of northern Syria it occupied in October 2019.¹⁰

UNMAS signed a Memorandum of Understanding (MoU) with the Syrian government in July 2018 under which it deployed two staff to Damascus in October 2018. After meeting Deputy Foreign Minister Faisal Mikdad in Damascus in October 2019, UNMAS Director Agnes Marcaillou reported the government had agreed to the involvement of international demining organisations. They would be registered by the government and coordinated by UNMAS, which stated that discussions were underway on plans for survey, marking, and clearance.¹¹ As of May 2020, however, no international demining organisations had registered with the government and UNMAS remained focused on training Syrian partners for risk education and community survey. Between January and July 2019 teams surveyed 365 areas in Aleppo, northern Hama, and Idlib governorates, marking 370 explosive items.¹²

LAND RELEASE SYSTEM

OPERATORS AND OPERATIONAL TOOLS

Russia deployed several hundred military deminers from its Armed Forces Demining Centre from 2017 onwards, conducting clearance with manual teams supported by mine detection dogs and Uran-6 mine detection robots. Russian troops also provided training courses for Syrian army engineers at Hmeimim air base and at training centres established in 2017 in Aleppo and Homs. By the start of January 2018, Russian armed forces reported they had trained 900 Syrian engineers.¹³

Russia started to withdraw troops, including deminers, from Syria in 2018 but its Ministry of Defence continued to report mine clearance and explosive ordnance disposal (EOD) in Syria in 2020.¹⁴ Russia appealed to other countries in 2018 to provide support. Armenia responded by sending an 83-strong team to Syria in February 2019, planning to focus its work on the northern governorate of Aleppo.¹⁵ Armenia rotated a new team to replace the first after four months.¹⁶

National operators included SCD, widely reported as White Helmets, which worked with six clearance teams and three community liaison/survey teams in north-west Syria in 2019. Three clearance and two survey teams operated in Idlib province, a focal point of conflict in 2019, with two clearance teams and one survey team working in Aleppo and one

clearance team in Hama province. Teams mostly destroyed CMR and tackled a wide range of other unexploded ordnance (UXO). In January 2019, five SCD staff took part in a two-week course delivered remotely in humanitarian response to IEDs, focusing on search, identification, and threat assessments to increase safety in daily search and rescue.¹⁷

AFAK, a Syrian NGO working in partnership with The HALO Trust, conducted clearance in the southern provinces of Dar'a and Quneitra in the early part of 2019 until a Syrian army offensive took control of the area.¹⁸

In areas outside government control in the north-east, humanitarian demining organisations and commercial companies have conducted large-scale clearance in areas recaptured from Islamic State. Tetra Tech worked operated in Raqqa, Deir Ezzour, and, after its recapture in 2019, in Barghuz. Funded by the United States (US) Department of State, Tetra Tech focused on critical infrastructure such as hospitals, schools, water pumping stations, and electricity generating plants. A small national organisation, Roj Mine Control Organization (RMC), was conducting clearance in north and north-east Syria but reportedly sustained heavy casualties among its deminers attempting clearance of improvised devices.¹⁹

LAND RELEASE OUTPUTS

LAND RELEASE OUTPUTS IN 2019

Syria's continuing conflict prevented progress towards a coordinated national programme of mine action. Comprehensive information on outcomes of survey or clearance in any areas was unavailable.

SCD reported conducting 753 tasks in three governorates in 2019 which resulted in destroying 887 CMR and 143 items of other UXO.²⁰

Table 1: Syrian Civil Defence CMR clearance 2019

Province	Tasks	Submunitions destroyed	Other UXO destroyed
Idlib	327	428	51
Aleppo	289	372	46
Hama	137	87	46
Totals	753	887	143

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- 1 Statement to the UN Security Council by Agnes Marcaillou, Director, UNMAS, 24 October 2019.
 - 2 Statement to the UN Human Rights Council by Paulo Sergio Pinheiro, Chair of the Independent International Commission of Inquiry on the Syrian Arab Republic, Geneva, 2 July 2019; "Civilians killed in Idlib as Syrian government escalates its bombardment in northern Syria", Middle East Eye, 7 April 2019.
 - 3 "Russia/Syria: Flurry of prohibited weapons attacks", Human Rights Watch, 3 June 2019.
 - 4 Report of the Independent Commission of Inquiry on the Syrian Arab Republic, UN doc. A/HRC/43/57, 28 January 2020, para. 20.
 - 5 "Syria: cluster munition attack on school", Human Rights Watch, 22 January 2020; and Report of the Independent Commission of Inquiry on the Syrian Arab Republic, UN doc. A/HRC/44/61, 2 July 2020, para. 50.
 - 6 Report of the Independent Commission of Inquiry on the Syrian Arab Republic, UN doc. A/HRC/44/61, 2 July 2020, paras. 50 and 53.
 - 7 "Nearly 457 Attacks by the Syrian and Russian Regimes Using Cluster Munitions were Documented, 24 of them since the Sochi Agreement", Syrian Network for Human Rights, 16 April 2019, at: bit.ly/31eD11B.
 - 8 Email from Michael Edwards, Explosive Hazard Operations Manager, Mayday Rescue, 25 May 2020; Mayday Rescue, "Syria Civil Defence, Explosive Hazard Mitigation Project Overview, Nov 2015–Mar 2018", 1 March 2018.
 - 9 Email from Michael Edwards, Mayday Rescue, 25 May 2020.
 - 10 "Turkey destroys hundreds of mines, IEDs in Syria", Anadolu Agency, 9 January 2020. The news item said the Turkish Ministry of Defence had reported destroying 891 landmines and 1,660 IEDs.
 - 11 Statement by Agnes Marcaillou, Director, UNMAS, to the UN Security Council, 24 October 2019.
 - 12 Ibid.
 - 13 "Russian military boosts qualified Syrian sappers to demine war-ravaged country", Tass, 9 January 2018.
 - 14 See, e.g., "The Leramun district of the Syrian city of Aleppo will be cleared of explosive devices by the end of April", Report, Russian Centre for Reconciliation of Opposing Sides, 27 April 2020. The report did not state who conducted the clearance. The centre said engineers had cleared more than 3,000 hectares (30km²), 3,112 buildings, and 273km of roads, destroying 34,000 explosive items, including 5,400 IEDs, but did not say in what period of time.
 - 15 "Russia calls for international support for demining efforts in Syria", Xinhua, 7 July 2018; and "Armenia sends deminers to Syria as part of Russia-backed mission", Radio Free Europe, 10 February 2019, at: bit.ly/2K1glxo.
 - 16 "Armenia sends another group of sappers, medics, to Syria", Radio Free Europe, 5 June 2019, at: bit.ly/2ym8SaY.
 - 17 Email from Michael Edwards, Mayday Rescue, 25 May 2020.
 - 18 Email from Adam Boyd and Rob Syfret, HALO Trust, 18 May 2018; and HALO Trust, "Survey and Explosive Hazard Removal in Dar'a and Quneitra Governorates, Southern Syria", undated but 2018; and interview with Tim Porter, Director of Programmes, HALO Trust, in Geneva, 5 February 2019.
 - 19 S. Kajjo, "Landmine removal crucial in post-IS Syria", Voice of America, 3 April 2019; and interview with operators, Erbil, Iraq, May 2019.
 - 20 Email from Michael Edwards, Mayday Rescue, 25 May 2020.

KEY DEVELOPMENTS

The national estimate of cluster munition remnants (CMR) contamination increased significantly in 2019. The Tajikistan National Mine Action Centre (TNMAC) has approved a pilot project by Norwegian People's Aid (NPA) to introduce the Cluster Munition Remnant Survey (CMRS)/technical survey methodology and subsequently approved NPA's procedures for use by all operators.

RECOMMENDATIONS FOR ACTION

- Tajikistan should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Tajikistan should comply with its obligations under international human rights law to clear CMR on territory under its jurisdiction or control as soon as possible.
- The TNMAC should conduct survey to clarify the extent of remaining CMR and ensure timely clearance and release of the contaminated areas.

UNDERSTANDING OF CMR CONTAMINATION

Tajikistan does not have a comprehensive baseline estimate of the extent of CMR contamination but reported more than 1.5km² affected by CMR at the end of 2019 (see Table 1), an increase of two-thirds on the estimate a year earlier. TNMAC said this followed the addition of three confirmed hazardous areas (CHAs) totalling 616,191m².¹ NPA, the main operator addressing CMR, identified one CHA in 2019 in Darvoz's Sagirdasht municipality covering 288,191m². The Union of Sappers of Tajikistan (UST) confirmed two other hazards covering a total of 528,000m², also in Sagirdasht.²

CMR are concentrated in central provinces used as summer pasture by local communities and for that reason are considered high impact. Initial surveys identified hazardous areas largely on the basis of recorded accidents and local community reports that did not specify the types of contamination, underscoring the need for resurvey.³

Tajikistan traces its CMR contamination back to the civil war of 1992-97 but has not clarified who was responsible for using cluster munitions.⁴ Most of the submunitions cleared are from the Russian RBK 500 series, model AO 2.5RT/RTM.⁵

Table 1: CMR contamination (at end 2019)⁶

Province	CHAs	Area (m ²)
Rasht	3	531,000
Darvoz	6	762,231
Sh. Shohin	1	60,000
Sangvor	1	200,000
Totals	11	1,553,231

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Commission for the Implementation of International Humanitarian Law (CIIHL), chaired by the first deputy of the Prime Minister, and containing key representatives from relevant line ministries, acts as Tajikistan's national mine action authority, responsible for mainstreaming mine action in the government's socio-economic development policies.⁷

TNMAC is the executive arm of CIIHL and the body coordinating mine action, responsible for issuing task orders, information management and quality assurance (QA)/quality control (QC).⁸ It was set up by government decree in January 2014 replacing the Tajikistan Mine Action Centre and taking over the process of managing transition to a fully nationally-owned programme.⁹ In 2016, Tajikistan's Parliament

adopted a Law on Humanitarian Mine Action, which covers all aspects of mine action, and in 2017 it approved a national mine action strategy for 2017-20.¹⁰

With transition in place, UNDP formally concluded its Support to Tajikistan Mine Action Programme (STMAP) project in September 2019.¹¹ Any future support will be provided remotely from UNDP's regional hub in Istanbul.¹² The end of the programme resulted in loss of trained capacity for TNMAC as most STMAP staff were on UN salaries and left when the programme ended rather than continue on lower national salaries. It also raised questions as to whether TNMAC had sufficient staff capacity to fulfil its roles, notably in relation to planning and developing strategy.¹³

The Ministry of Defence (MoD) plays a major role in Tajikistan's mine action sector, in particular by conducting demining directly,¹⁴ but is not engaged in CMR clearance. The Organization for Security and Co-operation in Europe Programme Office in Dushanbe (OSCE POiD) has supported the MoD to update its multiyear plan, entitled "Ministry of Defence of the Republic of Tajikistan Co-operation Plan for Humanitarian Demining 2018–2023."¹⁵

GENDER AND DIVERSITY

TNMAC adopted a gender programme in October 2018 that was prepared by the Geneva Mine Action Programme (GMAP, now a programme of the Geneva International Centre for Humanitarian Demining, GICHD) and is committed to improving the situation of women in the mine action sector.¹⁶ A UNDP evaluation concluded TNMAC had made progress mainstreaming gender and diversity in mine action but the strategy has not yet been systematically implemented. Areas for further action included ensuring that training of trainers for risk education was gender balanced, introducing women QA/QC officers and developing a code of conduct and complaints mechanisms.¹⁷

Women account for around one fifth of personnel in survey and clearance teams in Tajikistan, and around one quarter of managerial/supervisory level positions. TNMAC plans to diversify survey teams to help reach a wider audience and more sources of information. Relevant mine action data are disaggregated by sex and age.¹⁸

TNMAC acknowledged it would be a challenge to achieve gender balance in view of the predominance of men in the military, where service is compulsory for men and voluntary

for women. TNMAC said where it could identify key positions that can be filled by female candidates, such as paramedics and/or QA/QC officers, this will be discussed and prioritised. In addition, TNMAC will seek to increase female civilian capacity in coordination with other implementing partners.¹⁹ The OSCE, which funds three demining teams, also seeks to promote gender awareness by collecting comprehensive relevant information.²⁰ Meantime, the Ministry of Defence's Humanitarian Demining Company (HDC) multi-task teams report to consult with all groups, including women and children, during survey and community liaison.²¹

NPA has a gender and diversity policy integrated into its Tajikistan project proposals and operations. Three of its six support staff are women but its 59 operational staff include only 13 women (22%) with more men than women in its survey and community liaison teams. NPA ensures that all groups are included during community consultation activities, and says it has a gender balanced community liaison team to help ensure this. NPA disaggregates mine action data by sex and age.²²

INFORMATION MANAGEMENT AND REPORTING

TNMAC completed an upgrade of its national mine action database from Information Management System for Mine Action (IMSMA) version 6.0 to IMSMA Core, which became fully operational in May 2019 making it easier to input, edit, and retrieve data. TNMAC also introduced new data collection forms intended to simplify data entry and improve data quality.²³ The closure of UNDP's support programme led to loss of trained staff and raised concerns it would be difficult to maintain information management standards.²⁴

PLANNING AND TASKING

Tajikistan's Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request submitted in March 2019 forms the basis of its operational planning, superseding the National Strategy on Humanitarian Mine Action 2017–2020. The request said land release would concentrate on the Central region and the Tajik-Afghan border, especially the Shamsiddin Shohin district as the area most contaminated with anti-personnel mines.²⁵

Tajikistan does not have a strategic plan that addresses cluster munitions but TNMAC said in May 2020 it targeted completion of CMR clearance by 2023.²⁶

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Tajikistan's revised National Mine Action Standards (TNMAS) were approved by Decree No. 162 on 1 April 2017. The revised standards have been translated into Russian and English.²⁷

TNMAC agreed to an NPA proposal to introduce the CMRS/technical survey methodology to Tajikistan and conducted a pilot project in the central region of the country in July 2019.²⁸ It has approved NPA's CMRS standing operating procedures (SOPs) for use by all operators.²⁹

OPERATORS AND OPERATIONAL TOOLS

Tajikistan's overall operational capacity in 2019 consisted of the Ministry of Defence's five HDC multi-task teams employing 50 deminers,³⁰ and NPA's five multi-purpose teams with 38 deminers. Only NPA conducted survey and clearance of CMR in 2019. NPA established a non-technical/targeted technical survey team in 2019 with four surveyors, one paramedic, and one task supervisor, as support to TNMAC's survey of mined and CMR-contaminated areas.³¹ NPA employed CMRS for the first time in Darvoz district confirming a hazard of 288,191m² in 2019 and conducting a second CMRS task in 2020. Central areas affected by cluster munitions are only accessible in summer months between July and September.³²

UST started to conduct CMRS in 2020 working with NPA on a task in Darvoz district's Sagidasht municipality.³³ UST, a national not-for-profit organisation, is accredited to conduct non-technical survey, risk education, and victim assistance, but is not yet accredited to conduct clearance.³⁴

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2019

Tajikistan released 724,420m² of CMR-affected area through a combination of survey and clearance in 2019, 78% more than the previous year when only clearance occurred.³⁵

SURVEY IN 2019

TNMAC reported release through survey of 201,809m² in 2019, all of it in reduction through technical survey by NPA.³⁶

CLEARANCE IN 2019

The only CMR clearance in 2019 was in Darvos district where NPA released a little over half a square kilometre (see Table 2), up from 407,571m² in 2018, and destroying 89 submunitions, compared with 63 the previous year.³⁷

Table 2: CMR clearance in 2019³⁸

Operator	Province	Areas released	Area cleared (m ²)	Submunitions destroyed	UXO destroyed
NPA	Darvos	1	522,611	89	2
Totals		1	522,611	89	2

UXO = unexploded ordnance other than submunitions

TNMAC has given priority to clearance of anti-personnel mines and meeting its APMBC Article 5 clearance obligations and it has not elaborated a detailed plan for CM survey and clearance but said it expects to complete clearance to be completed by 2023.³⁹ Tajikistan's government was reportedly preparing to establish a working group in late 2020 to consider the possibility of acceding to the CCM, bringing greater attention to this sphere of operations.⁴⁰

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 - 3 Email from Muhabbat Ibrohimzoda, TNMAC, 27 April 2018; and interview with Daler Eshonjonov, TNMAC, and Erkin Huseinov, United Nations Development Programme (UNDP), Dushanbe, 29 May 2018.
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 - 6 Email from Muhabbat Ibrohimzoda, TNMAC, 28 May 2020.
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 - 8 Ibid., pp. 20–21.
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 - 23 Email from Muhabbat Ibrohimzoda, TNMAC, 28 May 2020.
 - 24 R. Roberts, "Final Evaluation of Support to the Tajikistan Mine Action Programme", UNDP, 30 December 2019, p. 15.
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 - 26 Email from Muhabbat Ibrohimzoda, TNMAC, 28 May 2020.
 - 27 Email from Muhabbat Ibrohimzoda, TNMAC, 22 May 2017; and Second APMBC Article 5 deadline Extension Request (draft), 31 March 2019, p. 21.
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 - 29 Email from Melissa Andersson, NPA, 27 August 2020.
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 - 31 Email from Melissa Andersson, NPA, 27 March 2019.
 - 32 Email from Melissa Andersson, NPA, 28 August 2020.
 - 33 Emails from Melissa Andersson, NPA, 29 April and 27 August 2020.
 - 34 Emails from Muhabbat Ibrohimzoda, TNMAC, 22 May 2017; and Aubrey Sutherland, NPA, 18 October 2017.
 - 35 Email from Muhabbat Ibrohimzoda, TNMAC, 28 May 2020.
 - 36 Ibid.
 - 37 Email from Melissa Andersson, NPA, 29 April 2020.
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 - 39 Ibid.
 - 40 Email from Melissa Andersson, NPA, 27 August 2020.

RECOMMENDATIONS FOR ACTION

- Ukraine should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Ukraine should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- Ukraine should undertake a baseline survey of CMR contamination in areas to which it has effective access.
- Ukraine should formally establish a national mine action authority and a functioning national mine action centre to manage clearance of CMR and other explosive ordnance.
- Ukraine should elaborate a strategic plan for mine action, including for CMR survey and clearance.
- Ukraine should systematically collect data on contamination from mines, CMR, and other explosive remnants of war (ERW), as well as progress in survey and clearance, and establish a centralised database for planning purposes.
- Ukraine should consult with mine action stakeholders and elaborate standardised national criteria for the prioritisation of CMR clearance.

UNDERSTANDING OF AP MINE CONTAMINATION

The extent of contamination from CMR in Ukraine is not known. Ukraine has said that many unexploded submunitions contaminate the Donetsk and Luhansk regions,¹ with the most intensive use of cluster munitions said to have occurred in and around the city of Debalcevo in Donetsk oblast.² In 2017 and again in 2020, Ukraine estimated, implausibly, that total contamination by mines and ERW (including CMR) could extend over 7,000km².³ The Ukrainian Ministry of Defence (MoD) has accepted that this is a “rough” estimate.⁴

It is further suggested that up to one fifth of the explosive contamination is from mines while the rest is from different ERW, including CMR.⁵ But Ukraine cannot reliably estimate the specific extent of CMR contamination until a baseline survey has been completed.⁶ The heaviest mine and ERW contamination is believed to be inside the 15km buffer zone between the warring parties, also called the Grey Zone.⁷ Non-technical and technical survey are being conducted in the government-controlled area (GCA) in eastern Ukraine but ongoing conflict means that evidence-based survey is not possible in the Grey Zone.⁸

In 2019, the HALO Trust added 74,035m² of previously unrecorded CMR contamination to the database; Danish Demining Group (DDG) did not report any newly discovered areas of CMR contamination in 2019.⁹

Multiple reports from 2014 and 2015 indicated that both government forces and pro-Russian rebels used cluster munitions in the Donetsk and Luhansk regions of eastern Ukraine. This included Smerch (Tornado) and Uragan (Hurricane) cluster munition rockets, which deliver 9N210 and 9N235 anti-personnel fragmentation submunitions; 300mm 9M55K cluster munition rockets with 9N235 submunitions; and 220mm 9M27K-series cluster munition rockets.¹⁰

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Ukraine is contaminated by considerable quantities of other ERW as well as by anti-personnel and anti-vehicle mines used during the current conflict (see Mine Action Review's *Clearing the Mines 2020* report on Ukraine for further information). It is also affected by unexploded ordnance (UXO) and abandoned explosive ordnance (AXO) remaining from the First World War and Second World War¹¹ and Soviet military training and stockpiles. In February 2016, Ukraine said that 32 former military firing ranges and the many other areas contaminated with explosive items from past wars covered 1,500km².¹²

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

All mine action in the Donetsk and Luhansk regions, including CMR survey and clearance, are currently planned, coordinated, and controlled by the MoD, which operates the Kamyanets-Podilsky Demining Centre.¹³ Other national bodies involved in the sector include the Ministry of Internal Affairs, under which sits the State Emergency Services of Ukraine (SESU); the Security Services; the Ministry for Reintegration of the Temporarily Occupied Territories; the State Special Transport Services (SSTS) of the MoD; the National Police; and the State Border Service.¹⁴

The MoD has organisational control of operations, while SESU and STSS is generally responsible for conducting clearance. SESU established a "Special Humanitarian Demining Centre" in 2015 in Kiev. The centre's remit includes coordination of SESU pyrotechnical teams (akin to rapid-response explosive ordnance disposal (EOD) teams) involved in technical and non-technical survey, demining, internal quality control (QC) of SESU units, information management, and handover of land cleared by SESU to local authorities, as well as risk education.¹⁵

Ukraine's parliament adopted a national mine action law on 6 December 2018, which was signed by the President on 22 January 2019.¹⁶ However, the law could not be implemented. It was held to be incompatible with the Constitution of Ukraine because it gave authority to Parliament to create mine action institutions such as the national mine action authority (NMAA), which, as a "state body", is the responsibility of the Cabinet of Ministers. Following presidential and parliamentary elections in September 2019, a working group was set up comprised of representatives from relevant government ministries and the United Nations Development Programme (UNDP), NATO (the North Atlantic Treaty Organization), and the Organization for Security and Co-operation in Europe, Project Co-ordinator in Ukraine (OSCE PCU) to prepare amendments to the law. In June 2020, the "Law on the Amendments to the Law on Mine Action in Ukraine" passed its first reading. UNDP, the OSCE PCU, The HALO Trust, and DDG drafted comments on a number of problematic issues in the draft, including the training and insurance of deminers; the possibility for international operators to use explosives to destroy items found during clearance (currently, only the MoD and SESU can blow up ordnance); handover procedures; and liability of actors after handover.¹⁷

Adjustments are expected to be made to the draft of the revised Law taking these comments into account before its second reading. The amended Law was expected to be adopted in October 2020, before the adoption of the national budget for 2021.¹⁸ The Law establishes a framework for humanitarian demining, allocates responsibilities among state institutions, and envisages the creation of an NMAA and, strangely, two national mine action centres (NMACs). One NMAC will operate under the MoD Kamyanets-Podilsky Demining Centre while the other will be under SESU's "Special Humanitarian Demining Centre". Each centre will be accredited and have its own quality management capacity. Demining responsibility will be divided territorially between the two NMACs. The NMACs will be coordinated by the NMAA, an interagency body to be chaired by the MoD while "special conditions" exist in Ukraine. Thereafter, the Ministry

of Interior will take charge. National mine action standards (NMAS) and the national mine action strategy will be adopted by the NMAA.¹⁹

Operators participate in monthly mine action sub-cluster meetings, chaired by UNDP, which are attended by representatives of the MoD, SESU, and MOFA. In addition, the OSCE PCU organises regular roundtable meetings on specific mine action topics.²⁰

National funding is provided for mine and ERW clearance and quality control.²¹ The MoD and the Civil-Military Cooperation Directorate (CIMIC) of the Armed Forces of Ukraine have supported operator survey and clearance on all matters related to security and, in particular, have supported the deployment of HALO Trust's teams in the 15km buffer zone.²² Ukraine also receives support from foreign partners (OSCE and NATO) for clearance equipment.²³

The Geneva International Centre for Humanitarian Demining (GICHD) has been working with the OSCE PCU and the Geneva Centre for Security Sector Governance (DCAF) to help foster mine action institutions.²⁴ In 2019, the GICHD supported the development of new mine action legislation and the NMAS; provided training in quality management and Information Management System for Mine Action (IMSMA) Core; facilitated a regional roundtable on Explosive Ordnance Risk Education (EORE) communication approaches; and organised a visit to the Lebanon Mine Action Centre for the head of the three training programmes.²⁵ The OSCE PCU has received funding until December 2021 to support Ukraine in establishing an NMAA and an NMAC; elaborating national standards and mine action legislation; developing the IMSMA database in co-operation with the GICHD; organising training in quality management, non-technical survey, and IMSMA; and procuring demining equipment for the MoD and SESU.²⁶

DDG provided capacity development to SESU in 2019 and, as at April 2020, was supporting equipment procurement; the development of standard operating procedures (SOPs); deployment/operational activity (mine clearance, non-technical survey); and quality assurance (QA)/quality control (QC). In addition, DDG provided training on non-technical survey, clearance, and data management.²⁷ In 2019, The HALO Trust provided information management support and quality management training to the MoD. In 2020, HALO Trust was providing training to SESU on non-technical survey, medical support, geographic information systems (GIS), risk education, clearance, and quality management.²⁸

GENDER AND DIVERSITY

As at June 2020, no information had been provided on whether there is a gender policy and associated implementation plan for mine action in Ukraine.²⁹

DDG has a gender and diversity policy and implementation plan. It ensures that all affected groups, including women and children, are consulted during survey and community liaison activities. However, as at April 2020, only 10% of operational roles were filled by women. With regard to managerial/supervisory positions, the Head of Programme and the Information Management Officer are both women, and in early 2020 DDG promoted a woman deminer to a Team Leader position.³⁰

The HALO Trust uses mixed gender non-technical survey and community liaison teams. HALO Trust began recruiting women for clearance roles in 2017, employing the first female deminers in Ukraine.³¹ As at April 2020, 16% of operational survey and clearance staff were women along with 24% of managerial/supervisory staff.³²

INFORMATION MANAGEMENT AND REPORTING

There are two functioning IMSMA databases in Ukraine, one managed by SESU and the other by the MoD, both of which collect and analyse contamination and land release data from national operators and NGOs.³³ The databases are, though, claimed to be complementary, as they are separated based on region, thematic area, and operational purpose.³⁴ In 2019, the GICHD facilitated the transition of the databases to IMSMA Core.³⁵ The GICHD and OSCE PCU facilitated the first regional IMSMA Core Implementation workshop in Kyiv in September 2019.³⁶ As at July 2020, in order to ensure the two databases are compatible, the GICHD was working with SESU and the MoD on a minimum data standard. Once the amendments to the Law are adopted, the databases will be coordinated by the NMAA's secretariat (the ministry of the chairman of the NMAA).³⁷ The NMAA will be supported by OSCE through equipment and training to combine the data from the two databases and will be responsible for the official reporting on the survey and clearance of landmines, CMR, and other ERW.³⁸

An online map of explosive contamination has been published by the MoD with technical support from The HALO Trust, using data from DDG, Swiss Foundation for Mine Action (FSD), The HALO Trust, and a commercial company, Demining Solutions.³⁹ Operators submit survey and clearance data to the MoD on a monthly basis and each submitted a report at the end of 2019 on all survey and clearance data for the year.⁴⁰ Despite all the capacity development support that Ukraine has received on information management the quality of official reporting remains poor. The lack of an operationalised mine action law has left Ukraine in a legal vacuum which makes it very difficult to obtain information on operational capacities and outputs. It is hoped that this will change once the amendments to the mine action law have been adopted.⁴¹

PLANNING AND TASKING

Ukraine does not have a national mine action strategy and, as at May 2020, there were no plans to develop one.⁴² Ukraine submitted its "Annual Action Plan for humanitarian demining in liberated areas in Donetsk and Luhansk" for 2019 in May of that year, as requested by the Seventeenth Meeting of States Parties to the APMB.⁴³

There are currently no standardised criteria at national level for task prioritisation.⁴⁴ Until an NMAC is established, all tasking of operators is managed by the MoD in line with its annual action plan.⁴⁵ Local government have been helping the MoD to prioritise tasks based on humanitarian criteria.⁴⁶ The MoD approves annual survey and clearance work plans submitted by operators. Operators prioritise clearance according to humanitarian impact and in discussion with the local community.⁴⁷

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

NMAS were finalised by the MoD in September 2018 after multi-year input and review from key stakeholders.⁴⁸ The NMAS were published in April 2019, but will only become compulsory once the new mine action legislation is passed; until then, they are not applied.⁴⁹ In addition, The HALO Trust reported that the NMAS will require further development as many of the terms and definitions are not in line with the International Mine Action Standards (IMAS).⁵⁰

In April 2019, the Cabinet of Ministers approved Resolution 372 on "Regulations on marking mine and ERW hazards", which are said to follow the provisions in the IMAS.⁵¹ The lack of an NMAC also means that operators' SOPs are not currently accredited. Operators are therefore working in line with IMAS and donor contractual obligations rather than NMAS.⁵²

OPERATORS AND OPERATIONAL TOOLS

The MoD and several other ministries continue to deploy units that undertake clearance and destruction of mines and ERW. This includes engineer-sapper units of the Armed Forces of Ukraine; the National Guard of Ukraine; the Ministry of Internal Affairs, which conducts clearance through SESU and also has an engineering department that conducts EOD; the Security Service; the State Special Transport Service, which is responsible for demining national infrastructure; and the State Border Service, which conducts demining in areas under its control on land and in the sea.⁵³ In its 2020 extension request, Ukraine reported that 60 "local administrations" are involved annually in demining in the Donetsk and Luhansk regions.⁵⁴

Three international demining organisations—DDG, FSD, and The HALO Trust—are operating in Ukraine.⁵⁵ FSD suspended demining operations in 2019 due to lack of funding, though they have been actively looking for opportunities to continue their programme.⁵⁶ In addition, the Ukrainian organisations Demining Team of Ukraine and Demining Solutions are active in demining in the east of the country.⁵⁷ In its 2020 APMB Article 5 deadline extension request, Ukraine reported that 41 demining "groups" with a total of more than 500 people were involved in mine action from these organisations.⁵⁸

Table 1: Operational clearance capacities deployed in 2019⁵⁹

Operator	Manual teams	Total deminers*	Dogs and handlers	Machines**	Comments
HALO	23	276	0	3	Increased from 2018 by 7 manual demining teams (91 staff) and 2 mechanical support teams (remotely controlled vegetation cutters – 10 staff)
DDG	2	23	0	0	No change from 2018.
Demining Solutions	1	7	0	0	
Totals	26	306	0	3	

* Excluding team leaders, medics, and drivers. ** Excluding vegetation cutters and sifters.

In 2019, the HALO Trust also deployed 12 non-technical survey personnel across 3 teams and 12 technical survey personnel across 2 teams. DDG did not deploy any survey personnel in 2019. The HALO Trust increased its clearance capacity in 2019 compared to the previous year thanks to increased funding and intended to maintain that capacity in 2020 while increasing the number of technical survey teams to three.⁶⁰ All DDG's deminers are trained to conduct technical survey and will do so "as and when required". DDG also has three non-technical survey teams totalling six people who conduct non-technical survey during the winter stand-down. DDG was due to increase its clearance capacity in 2020 to five teams totalling 34 deminers, also the result of increased funding.⁶¹

Another step forward in 2019 saw the MoD establish QC inspection teams. They began conducting post-clearance inspection visits, which enabled official handover of land to take place for the first time.⁶²

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2019

HALO Trust cleared more than 68,000m² of CMR-contaminated area in 2019. Neither the HALO Trust nor DDG conducted any survey of CMR-contaminated areas in 2019 (or in 2018).

DDG did not conduct any clearance of CMR contamination areas in 2019 nor 2018 but cleared 445,009m² of area that was suspected to contain anti-vehicle mines and UXO, destroying nine anti-vehicle mines and three items of UXO.⁶³

The HALO Trust cleared 68,230m² of CMR-contaminated area in the village of Svatove in Svativskiyi district and found and destroyed four submunitions. HALO Trust also destroyed one submunition during a spot task.⁶⁴ This is an increase from the 49,010m² HALO cleared in 2018, along with the destruction of two submunitions.⁶⁵

Table 2: CMR clearance in 2019⁶⁶

District/Village	Operator	Area cleared (m ²)	Submunitions destroyed	UXO destroyed
Svativskiyi/Svatove	HALO Trust	68,230	4	103
Totals		68,230	4	103

UXO = Unexploded ordnance excluding submunitions

No target date has been set for the completion of CMR clearance in Ukraine. Although it is understood that, in addition to clearance conducted by operators, some clearance of CMR contamination has been undertaken by the MoD the extent is unclear as that information has not been made available by the national authorities.⁶⁷

Access to CMR contamination is a problem in certain areas either because of security concerns or because of their proximity to active military sites.⁶⁸ In addition, Ukraine has not had full control over parts of its territory with suspected CMR contamination since conflict erupted in 2014.

Russia has obligations under international human rights law to clear CMR as soon as possible, in particular by virtue of its duty to protect the right to life of every person under its jurisdiction, in any areas of Ukraine over which it exercises effective control.

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KEY DEVELOPMENTS

Vietnam is currently in an important period for increased attention towards mine action, as the national programme develops its legal framework, structure, policies, and standards. With the adoption of a new national mine action decree in 2019, followed up with a more detailed Guiding Circular in February 2020, the Vietnam National Mine Action Centre (VNMAC) has now been officially empowered to start coordinating humanitarian mine action in Vietnam. Progress has already started towards establishing a fully functioning national information management database, and national quality management (QM) capacity, and there were plans to update national mine action standards in 2020 to bring them more in line with the international mine action standards (IMAS).

RECOMMENDATIONS FOR ACTION

- Vietnam should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Despite not yet being a State Party to the CCM, Vietnam has obligations under international human rights law to clear cluster munition remnants (CMR) in areas under its jurisdiction or control as soon as possible.
- In collaboration with implementing partners, VNMAC should elaborate a new national mine action strategy and annual workplans for CMR, with clear targets for survey and clearance.
- VNMAC should expand non-technical and technical survey and establish a nationwide baseline of CMR contamination.
- National Technical Regulations (QCVNs) and National Mine Action Standards (TCVNs) should be updated in line with IMAS.
- VNMAC should accelerate development of a fully functional national information management database and make Information Management System for Mine Action (IMSMA) data available to all clearance operators and relevant stakeholders.
- VNMAC should publish comprehensive annual reports on the results of survey and clearance by all operators.
- VNMAC should more actively engage in regional sector discussions aimed at accelerating the progress of CMR survey, particularly on survey efficiencies and effectiveness.

UNDERSTANDING OF CMR CONTAMINATION

Vietnam is massively contaminated by CMR but no accurate estimate exists, even to the nearest hundred square kilometres. An explosive remnants of war (ERW) impact survey, started in 2004 and completed in 2014, was only published in 2018. It said that 61,308km² or 19% of Vietnam's land surface area was affected by ERW, but did not specify the area affected by CMR. It found, though, that CMR affected 32 of Vietnam's 63 provinces and cities.¹

In Quang Tri, reputedly Vietnam's most contaminated province, Norwegian People's Aid (NPA) is carrying out a province-wide survey.² Estimates of CMR-contaminated area are increasing sharply as survey progresses. As at May 2020, NPA had completed non-technical survey of all villages (76% of the total number of villages) made available for non-technical survey in Quang Tri province; and technical survey by NPA had confirmed 429km² (or 9% of the total area of Quang Tri province) as contaminated by CMR. It planned to complete technical survey of the remaining villages by April 2021.³

In Quang Binh province, Mines Advisory Group (MAG) has used a desk-top non-technical survey methodology – Evidence Point Polygon (EPP) mapping – to map initial confirmed hazardous areas (CHAs). The EPP technique, pioneered by MAG, uses historical and ongoing operational data from GPS-recorded explosive ordnance disposal (EOD) spot tasks involving submunitions to plot what are termed Initial CHAs (iCHAs). Based on extrapolations of available data, as at June 2019, MAG estimated that its historical data would lead to more than 42km² being defined as contaminated. However, because MAG's data does not cover the whole province, overall contamination levels for Quang Binh will be higher than those being defined through EPP mapping. From April 2019, MAG deployed one technical survey team in Quang Binh province to complement EPP mapping data and to define CHAs for clearance and survey the areas in between adjacent iCHAs, to merge them into one larger CHA.⁴

In Thua Thien Hue province, in collaboration with VNMAC and the provincial authorities, NPA has been implementing CMRS in four districts. Initial technical survey to-date has shown that at least 45km² is contaminated by CMR in the western district of A Luoi. EOD and non-technical survey operations by NPA in the province have located potential hazardous areas that need technical operations to further define the contamination.⁵

The United States (US) dropped 413,130 tons of submunitions over Vietnam between 1965 and 1973, reportedly striking 55 provinces and cities. Vietnam's Military Engineering Command has recorded finding 15 types of US-made submunitions. Most submunition types were air-dropped, but artillery-delivered submunitions were also used in central Quang Binh and provinces to the south.⁶ Most of the CMR that international operators encounter in Quang Tri are BLU types 26, 29, and 61, and occasionally Mk 20 Rockeyes,⁷ as well as BLU 63 in Quang Binh province.⁸ In Quang Nam, almost all the CMR cleared by Danish Demining Group (DDG) were M83 submunitions.⁹ The Military Engineering Command encountered substantial amounts of cluster munitions abandoned by the US military, notably at or around old US air bases, including eight underground bunkers found in 2009, one reportedly covering 4,000m² and containing some 25 tons of munitions.¹⁰

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Vietnam has huge unexploded ordnance (UXO) contamination and an unquantified mine problem (see Mine Action Review's *Clearing the Mines 2020* report on Vietnam for further information). The ERW impact survey identified the most heavily contaminated regions as the central coastal provinces, the Central Highlands, the Mekong River delta, and the Red River delta.¹¹ The experience of international operators in central Vietnam points to wide variations in contamination types from district to district. International operators report encountering mainly projectiles, mortars, grenades, and some aircraft bombs.¹²

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Vietnam National Mine Action Centre (VNMAC) was established in 2014 by Prime Ministerial decision (No. 738 of 2013) to strengthen the direction of mine action and provide a focal point for mine action operations,¹³ although management and operations continued to depend largely on the Armed Forces.

In a positive development, Vietnam's mine action programme is now undergoing significant restructuring, following the Decree on the Management and Implementation of Mine Action Activities, issued in February 2019 (Decree No. 18) and subsequent approval of a Guiding Circular which came into effect in February 2020 (Guiding Circular No. 195).¹⁴

Under Decree No. 18, while the Ministry of National Defence (MoD) will continue to elaborate and preside over the national mine action programme, as the lead authority, in coordination with other relevant ministries and sectors,¹⁵ VNMAC will, under the direction of the Prime Minister and management of the MoD, "monitor, coordinate and implement mine action tasks".¹⁶ Guiding Circular No. 195, which details a number of articles and methods regarding implementation of the Decree, also officially appoints VNMAC as the national coordinator of mine action activities in Vietnam.¹⁷ Therefore, this is an important period for VNMAC, as the national programme develops its legal framework, structure, policies, and standards.

While there is still a need for greater transparency from VNMAC, international mine action organisations reported that their coordination and collaboration with VNMAC improved throughout 2019, most notably with VNMAC's engagement with the Landmine Working Group (LWG). The LWG, which is co-chaired by NPA and the International Centre (IC), is a platform for humanitarian mine action stakeholders in Vietnam to meet quarterly to share and discuss updates that impact the sector, although in 2019 the LWC only met twice and in 2020 as at June, no LWC had yet taken place. In 2019, VNMAC participated and engaged in this forum, specifically calling on LWG members to help it develop Decree No. 18 and Guiding Circular No. 195.¹⁸ During 2020, the LWG was due to be involved in the planned update to the national regulations

and standards. International operators hope that VNMAC will use the LWG forum for collective discussions on continued improvements in coordination and collaboration of mine action in Vietnam.¹⁹

In addition, VNMAC's coordination and collaboration with the already well-established Quang Tri Mine Action Centre (QTMAC) is also starting to develop, and the respective provincial and national database units are both working to synchronise historical data. VNMAC now produces an annual mine action calendar covering the work and activities of all international mine action organisations, and in 2019 VNMAC initiated a biannual operations report covering the activities and results of all international NGOs in Vietnam.²⁰

MAG, NPA, PeaceTrees Vietnam (PTVT), the United Nations Development Programme (UNDP), and Golden West all provide capacity development support in Vietnam.

MAG and NPA facilitated and hosted familiarisation visits by VNMAC to their offices and task sites, to study operations, information management, and quality management (QM).²¹ In Quang Tri province, MAG and NPA continued to support QTMAC and in particular, provided inputs to establish Vietnam's first provincial mine action centre, to enhance its managing and coordinating role, finalise clearance prioritisation forms and processes, and they also facilitated visits to field operations for piloting the process. Various capacity development initiatives were conducted or provided for QTMAC staff, including sharing state-of-the-art technologies in the sector like the use of ArcGIS Online and drones for data collection and operations management.²²

During 2019, MAG also worked with the provincial authorities and the military in Quang Binh province to coordinate operations, and supported the development of a provincial Mine Action Strategy. A joint proposal between MAG, NPA, and PTVN was signed and approved in May 2020, and includes survey, clearance, EOD, risk education and a capacity development component regarding establishing a provincial coordination committee and mine action database in Quang Binh province. Operations commenced in June.²³

NPA is implementing three capacity-development projects with VNMAC. The first project provides an NPA Senior Technical Advisor who works with VNMAC senior management on issues related to their strategic, organisational, and individual development as well as on donor liaison and resource mobilisation. The second involves the provision of an NPA Information Management Technical Advisor to VNMAC, to assist VNMAC in its establishment of a national information management system, including mentoring of VNMAC's Information Management Unit, which runs the national database. Lastly, NPA provides a Capacity Development Advisor who supports QTMAC management in coordination between all mine action actors in accordance with the QTMAC policy, as well as supporting operational planning/prioritisation and policy and procedural development.²⁴ The NPA-VNMAC technical survey project is an evolving process to formulate a technical survey standing operating procedure (SOP) for Vietnam.

In addition, as part of the UK Department for International Development (DFID)'s global mine action programme (GMAP) II project in 2019, led by MAG, NPA has the responsibility to train four members of the VNMAC's Consultancy, Survey and Quality Management Centre to become the first national QM team. The training was completed at the end of March 2020 and the VNMAC personnel will be certified as QA officers, with additional training and mentoring provided during 2020.²⁵ MAG believes that coordination and collaboration with VNMAC has been strengthened as a result of this project.²⁶

PTVT undertakes joint efforts to support and help enhance the management and coordination of QTMAC and VNMAC. In partnership with Golden West, PTVT hosts field mentoring visits of VNMAC and visits and trips of QTMAC and VNMAC to enable them to study operations, information management, and QM.²⁷

VNMAC, the Korea International Cooperation Agency (KOICA), and UNDP are collaborating on a US\$30 million project for ERW survey and clearance (KV-MAP), and to support information management resources, risk education, and victim assistance in two central provinces (Binh Dinh and Quang Binh) for three years (2018–20). A Joint Project Management Unit (JPMU), with representatives from each of the three organisations, is responsible for project management, supported by a UNDP chief technical adviser who joined in March 2018, and meets weekly.²⁸ A Joint Project Coordination Committee (JPCC), comprising representatives from the MoD, VNMAC, UNDP, and KOICA, provides overall strategic guidance and oversight and meets twice a year.²⁹

Golden West is providing IMAS-compliant EOD training to Provincial Military Commands in Ha Tinh, Quang Binh, and Quang Tri provinces to provide a sustained clearance response, as well as advising VNMAC on technologies and training and supporting US military-to-military EOD training.

Vietnam was serving as chair of ASEAN and of the ASEAN Regional Mine Action Center (ARMAC) in 2020.³⁰ Vietnam is also a non-permanent member of the United Nations Security Council (UNSC) for 2020–2021.

There is a well-established process for granting work permits and visas to international mine action staff and for procurement of demining equipment, although the importation of equipment can be lengthy, depending on the nature of the items.³¹ The memorandum of understanding (MoU) approval process was reported to be inconsistent between provinces.³² However, it is hoped with the adoption of Decree No. 18 and of Guiding Circular No. 195, processes that enable effective mine action at a central level will improve.³³

GENDER AND DIVERSITY

As at June 2020, Vietnam had not provided information on whether it has a gender policy and implementation plan for mine action or on the proportion of female employees at VNMAC.

DDG has a gender policy and implementation plan and promotes equal access to employment opportunities. DDG used community meetings, focus group discussions, and household interviews to ensure that consultation with local people during survey activities is inclusive. Survey teams were for the most part made up of both men and women.³⁴ Of the three operators, DDG had the highest proportion of women employed,³⁵ but ceased operations in Vietnam in January 2020 due to lack of funding.³⁶

MAG has a gender policy, which is also incorporated into other policies and procedures. It encourages diversity and inclusion within its recruitment, training, and promotion procedures, ensuring equal opportunities for all staff.³⁷ As at June 2020, MAG was employing 727 staff in Vietnam. Women account for 25% of MAG's total operational capacity in Vietnam and 22% of managerial/supervisory level positions.³⁸ MAG's community liaison teams are gender balanced and trained to involve all groups, including women and children.³⁹

NPA follows Vietnamese law in regards to providing equal opportunity and non-discrimination in employment. NPA continues to work towards gender equality in the recruitment process and in the work place. Women are actively encouraged to apply for roles and to pursue development opportunities once employed.⁴⁰ NPA employs a total of 278 staff in Vietnam, of whom 29% are female, including 22% of operational staff and 26% of management-level positions.⁴¹ NPA's non-technical survey teams are gender balanced to engage with affected populations regardless of gender or age. NPA has found this inclusive process effective for later technical survey within the Cluster Munition Remnant Survey (CMRS) process.⁴²

PTVN had gender policies in place and encourages diversity and inclusion within its recruitment, training, and procedures for promotion, ensuring equal opportunities for all staff. It has 127 staff in Vietnam, 23 of whom are women, including 39% of management-level positions and 15% of operational staff. PTVN also has six ethnic minority staff in its operational teams.⁴³

MAG's, NPA's and DDG's operations data are disaggregated by sex and age.⁴⁴

INFORMATION MANAGEMENT AND REPORTING

Data quality and accessibility continues to be a major challenge in Vietnam. VNMAC is responsible for national information management and uses the IMSMA. However, information is not currently shared with mine action operators.⁴⁵ The ERW impact survey report released in 2018 noted that “regulations on reporting demining activities have not been strictly followed”. Authorities had, however, received clearance data for Ha Tinh and Quang Tri provinces, where international donors have supported operations.⁴⁶ VNMAC also receives data from the 2018–20 joint KV-MAP project, between VNMAC, KOICA, and UNDP in Binh Dinh and Quang Binh provinces.⁴⁷

However, deficiencies in national-level information management are now starting to be addressed by VNMAC, made possible by Decree No. 18 and Guiding Circular No. 195, which makes clear that VNMAC is responsible for the management and development of the national mine action database. The Director General of VNMAC is responsible for regulating the scope, content, and nature of mine action data that is allowed to be shared and accessed by the information users. As at April 2020, VNMAC was in the process of determining how information management will be collected nationally and shared.⁴⁸

A number of data collection forms are used in Vietnam by different mine action actors. However, following the adoption of Guiding Circular No. 195, it is expected that national regulations and standards will be updated to allow for the approval of one set of standardised data collection forms across Vietnam.⁴⁹

NPA is working with VNMAC at the national level to establish information management units (IMUs) to collect and collate information from across Vietnam and give transparent access to available data. Throughout 2019, VNMAC’s IMU worked to input historical data stored on other databases and available data from the provinces; a process which was expected to be completed in 2020.⁵⁰

At the provincial level, during 2019, QTMAC, MAG, NPA, and PTVN hosted a number of visits by VNMAC to share experience in project management, including information management and operational databases. In Quang Tri province, the QTMAC database unit has been running well and is able to autonomously collect, collate, analyse, and task operators based on information shared by all mine action stakeholders in the province (domestic and international, civilian and military). Access to the Quang Tri IMSMA database is free and accessible to all mine action stakeholders (online website) while ensuring data protection.⁵¹ The database provides a basis for planning and tasking, as well as victim data.

Data hosted at QTMAC’s DBU are believed to be accurate, up to date, and reliable, have been the catalyst for greater coordination across all stakeholders within the province.⁵²

Development of information management is an aim of the KV-MAP project, the goal of which is to improve available information for the UXO/mine action sector to support informed policy making and task prioritisation.⁵³ In 2018, Database Centers for Mine Action were established in Quang Binh and Binh Dinh provinces with training provided to provincial staff. As at June 2019, these centres manage the data from the KV-MAP project which is then fed into the VNMAC database. But the aim is for the KV-MAP DBU to report to the provincial DBU to be established at the DOFA.⁵⁴ In October 2019, MAG initiated a partnership with NPA and PTVN, which includes support to the Quang Binh provincial Department of Foreign Affairs to establish a central database in the province, based on the Quang Tri database unit model.⁵⁵

NPA planned to support the creation of the Thua Thien Hue Department of Foreign Affairs database (DOFA) unit from June 2020.⁵⁶

PLANNING AND TASKING

VNMAC would benefit elaborating a national mine action strategy and annual workplans for CMR, with clear targets for survey and clearance. Vietnam does not yet have a strategy specifically targeting CMR. Decision 504, approved by the Prime Minister in April 2010, set out a National Mine Action Plan for 2010–25. The plan aimed to “mobilize domestic and international resources in making efforts to minimize and finally create impact-free environment for social economic development.” It called for clearance of 8,000km² of ERW between 2016 and 2025.⁵⁷

As at June 2020, no information had been formally provided by VNMAC on the realisation of its 2019 goals or on its goals for 2020.

As at June 2020, there was no national prioritisation system for CMR clearance. However, in Quang Tri province, there is a prioritisation plan in place and an effective system for task allocation.⁵⁸ The prioritisation processes and accompanying forms were piloted in 2018 and were rolled out in May 2019,

with QTMAC now managing the province-wide clearance task prioritisation process.⁵⁹ The criteria are established based on consultation and agreement between QTMAC and operators. The QTMAC tasks all mine action operators in the province and annual workplans are approved by provincial authorities, in cooperation and dialogue with operators.⁶⁰

In Quang Binh province, there is no survey or clearance tasking by national or provincial authorities.⁶¹ MAG has first been applying its own procedures and process to prioritise clearance tasks based on scores of consent, hazard assessment, and community benefits.⁶² From the adoption of the prioritisation process in Quang Tri, MAG has been applying the same procedures and process in Quang Binh in agreement with provincial authorities. This to ensure consistent approach across provinces and to foster standardisation.⁶³ In Quang Binh, MAG produces its own task dossiers to the same standard as those in Quang Tri. These will be submitted once Quang Binh has a functioning mine action coordination body.⁶⁴

To address the challenge of effective planning for mine action operations in Quang Binh, NPA in joint consortium with MAG, PTVN, and PPC of Quang Binh is proposing a plan for CMRS of the whole province. The survey ambition, based largely on non-technical and technical survey, works to delineate contaminated areas in all Quang Binh and aims to better understand the nature and extent of contamination in the province, and help inform planning processes.⁶⁵

In Thua Then Hue province, tasking for NGO operators is decided by provincial authorities in accordance to the provincial socio-economic development plan.⁶⁶

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Vietnam has both National Technical Regulations (QCVNs), which are legally binding and similar in content to standing operating procedures SOPs, and National Mine Action Standards (TCVNs), which despite being standards are considered optional by VNMAC and the MoD.⁶⁷

The existing QCVNs and TCVNs are outdated and not in line with IMAS.⁶⁸ According to NPA, the current QCVNs are drafted with the MoD in mind and without consideration of other operators' SOPs, equipment use, land release methods, or structure and composition of teams. There are issues with the terminology used in TCVNs, chapters contradict themselves, and they read as a combination of SOPs and standards.⁶⁹ However, in a positive development, VNMAC plans to update the QCVNs and TCVNs in 2020 to bring them in line with IMAS.⁷⁰ As part of this process, VNMAC will update the SOP on QM and the SOP on technical and non-technical survey, and although consideration was given on whether to merge the QCVNs and TCVNs into one document,⁷¹ as at August 2020 the QCVNs were being updated separately.⁷² Work commenced in May 2020, with the aim to complete the required updates by the end of the year, but it will likely take longer to elaborate and approve the new circulars needed. Updates will reportedly be made in consultation with LWG members and the Geneva International Centre for Humanitarian Demining (GICHD).⁷³

OPERATORS AND OPERATIONAL TOOLS

Most clearance in Vietnam is conducted by the Army Engineering Corps and military-owned commercial companies; coordination for which does not fall under the remit of VNMAC (although Engineering Command teams are, however, also deployed as part of the joint KV-MAP project). Outside the central provinces, the current strength and deployment of military-related demining is unknown.

Since 2016, the Golden West Humanitarian Foundation, supported by US funding, has been training and mentoring the Provincial Military Commands (PMC) EOD teams in Quang Tri, Quang Binh and Ha Tinh. The Quang Tri PMC EOD team is now fully integrated into the tasking structure of the QTMAC as a valuable asset to the province. The Quang Binh PMC are coordinating closely with the KOICA project and offering support to them. Officials have previously reported that it had 250 mine clearance and battle area clearance (BAC) teams nationally. Vietnam reportedly has more than 70 military-owned companies undertaking clearance related to infrastructure and commercial and development projects.⁷⁴

International operators active in 2019 included DDG, working in Quang Nam province; MAG, working in Quang Binh and Quang Tri provinces; NPA, working in Quang Tri and Thua Thien Hue provinces; and PeaceTrees Vietnam, who have been working in Quang Tri province since 1995. DDG ceased operations in Vietnam in January 2020, due to lack of funding.⁷⁵

DDG deployed two non-technical survey teams in 2019, totalling four personnel and two clearance teams, totalling 20 personnel. DDG only operated in Quang Nam province in 2019, as it was not able to secure funding for its operations in Thua Thien Hue province. It subsequently ceased operations in Vietnam in January 2020.⁷⁶

MAG deployed 39 clearance teams, totalling 390 deminers in 2019, and 1 technical survey team, totalling 10 personnel from April 2019. This represented an increase of five teams compared to 2018.⁷⁷ In 2019, MAG received permission from the Vietnam People's Army Department of Operations for the deployment of drones to support its operations in designated areas in Trieu Phong and Hai Lang districts, Quang Tri province from May 2019. The permission is renewed every three months with the Department of Operations.⁷⁸

In 2019, NPA had 11 non-technical survey teams (10 pairs of survey personnel in Quang Tri and 1 pair in Thua Thien Hue province), totalling 22 survey personnel; 25 technical survey teams totalling 125 personnel; and 3 manual clearance teams totalling 36 deminers (26 in Quang Tri and 10 in Thua Thien Hue province).⁷⁹ NPA planned to start up non-technical and technical survey operations in Quang Binh province in 2020.⁸⁰ The operational data feedback loop and sharing of knowledge between MAG and NPA as part of their partnership in Quang Tri continues and will also be replicated in Quang Binh,⁸¹ once NPA becomes operational there in 2020.

PTVN operates in Quang Tri province and most of its operations are in the two mountainous districts of Huong Hoa and Dakrong. It undertakes EOD, clearance, and integrated risk education, but does not conduct CMRS. In 2019, PTVN deployed 6 clearance teams (totalling 72 technicians/deminers), 2 EOD teams (totalling 16 technicians), and 2 clearance support teams of 15 personnel. This represented an almost doubling of capacity compared to 2018. All of PTVN's technicians are certified for IMAS EOD Level 1, and under a capacity development partnership with Golden West, by the end of 2019 PTVN had 11 technicians certified in IMAS EOD Level 3 (plus 3 under mentoring) and 31 technicians certified in IMAS EOD Level 2. PTVN's capacity includes 2 pairs of surveyors, who focus on re-survey CHAs for the purpose of planning and evaluation.⁸²

PTVN also planned to commence operations in Quang Binh province in 2020, together with MAG and NPA, with 4 multi-task teams totalling 32 technicians. PTVN's technicians will mostly be responsible for EOD spot tasks resulting from the Quang Binh hotline and from NPA's survey, along with joint efforts with MAG to conduct clearance of CHAs generated.⁸³

KV-MAP (between VNMAC, KOICA, and UNDP), which was initiated in February 2018, calls for ERW survey and clearance in the two provinces in 2018–20 to be carried out by provincial military teams targeting survey of 200km² and clearance of about 80km².⁸⁴ In 2018, operations in Quang Binh and Binh Dinh focused on survey, with 21 survey teams deployed.⁸⁵ Clearance began in 2019 and, as of June, 12 clearance teams were deployed. An additional two survey

teams have also been deployed to Quang Binh. According to VNMAC data provided by UNDP, capacity in 2019 was 21 survey teams and 64 clearance teams. Technical survey operations were completed in April 2020 and the project then focused more on clearance, with 85 clearance teams deployed for ERW clearance (including CMR).⁸⁶

In 2018, a Quality Management System (QMS) consisting of eleven procedures was developed by VNMAC and the GICHD and was piloted in KV-MAP.⁸⁷ A new 2020 QM SOP was close to being finalised as at the start of October, as part of the revision of the QCVNs.⁸⁸ As mentioned previously, under a DFID funded project, NPA was helping to establish and train a VNMAC QM team, with a view to receiving accreditation in the first half of 2020 from VNMAC, with NPA and GICHD support.⁸⁹

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2019

As at writing, national land release data from VNMAC for 2019 had still to be made available.

Based on data reported by international NGOs, in 2019, nearly 157km² was confirmed as containing CMR by technical survey and 6,352 submunitions were found and destroyed in the process.

A total of nearly 39km² of CMR-contaminated area was cleared by international NGOs with 7,871 submunitions found and destroyed. A further 1,050 submunitions were found and destroyed during spot tasks.

SURVEY IN 2019

In Quang Tri, ranked as one of Vietnam's most heavily contaminated provinces, NPA continued to work in a partnership with MAG, under which NPA conducted CMRS and MAG cleared the resulting CHAs. As part of the process of refining CMRS, NPA continued to adopt a more systematic technical survey approach that included 50-metre fade-out and "skip boxes" methodology which have significantly accelerated the process of defining CHA boundaries. A fade-out of 50 metres whenever evidence of CMR was found was introduced in April 2016 which was augmented by the introduction, in January 2018, of skipping two boxes in each direction of a box with a confirmed evidence point.⁹⁰ NPA aimed to complete survey of Quang Tri by April 2021.⁹¹

Table 1: Technical survey of CMR-contaminated area in 2019⁹²

Operator	Province	Area surveyed (m ²)	CHAs identified	Area confirmed (m ²)	CMR destroyed	Other UXO destroyed
MAG	Quang Binh	7,952,500	7	6,521,349	343	23
NPA	Quang Tri	80,182,500	162	147,350,462	5,908	2,835
NPA	Thua Thien Hue	1,772,500	2	2,975,000	101	21
Totals		89,907,500	171	156,846,811	6,352	2,879

NPA confirmed 150.3km² as containing CMR in 2019, an increase on the 113.4km² confirmed as CHA the previous year, which it said was due to an increased number of technical survey teams and the introduction of improved methodology for technical survey (CMRS v5).⁹³ The box-skipping methodology has significantly increased the accuracy, effectiveness, and efficiency of survey and clearance in Quang Tri province.⁹⁴

MAG surveyed 7,952,500m² in Quang Binh, during which it found and destroyed 343 CMR and 23 other UXO.⁹⁵

CLEARANCE IN 2019

Operators cleared over 38.5km² in 2019, an increase of 46% on the 26.3km² cleared in 2018, however, 2018 did not include PTVN clearance data. Clearance data for the PMC in 2019 was not known, including how much CMR-contaminated area was cleared in 2019 by provincial military teams coordinated by VNMAC as part of the KV-MAP ERW project.

Table 2: CMR clearance in 2019⁹⁶

Operator	Province	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
MAG	Quang Binh	6,942,818	2,422	600
DDG	Quang Nam	88,990	23	19
MAG	Quang Tri	26,219,397	4,583	5,552
NPA	Quang Tri	1,813,572	487	680
PTVN	Quang Tri	3,156,776	198	664
PMC*	N/K	N/K	N/K	N/K
NPA	Thua Thien Hue	321,300	158	95
Totals		38,542,853	7,871	7,610

N/K = not known

A further 1,050 submunitions were found and destroyed during EOD spot tasks in 2019: 5 by DDG, 466 by MAG, 151 by NPA, and 428 by PTVN.⁹⁷

DDG deployed battle area clearance teams to areas with suspected contamination as estimated by non-technical survey teams. Clearance of the area then began from evidence points collected by the non-technical survey teams and clearance to fade-out was applied to determine the boundaries of clearance.⁹⁸

In Quang Tri, MAG conducts clearance in partnership with NPA, which defines CHAs through technical survey. In Quang Binh, MAG clears CHAs defined through EPP Mapping. MAG's total clearance of 33.16km² in 2019 is a significant increase on the 24.81km² the previous year and is due to an increase in clearance capacity from the beginning of 2019. All CHAs cleared by MAG in 2019 were found to have CMR contamination.⁹⁹ MAG adjusted its methodology in 2019, merging a number of CHAs close to each other into larger CHAs in Quang Binh province.¹⁰⁰

In 2018, Quang Tri PMC was in the process of being organised into a functional EOD team so tasks were minimal, but outputs are expected to increase in 2019. The Quang Binh PMC did no clearance and responded to minimal spot tasks in 2018. This was being addressed in 2019.¹⁰¹

Vietnam has not set a target date for the completion of CMR clearance. In its national mine action plan for 2010 to 2025 it called for the clearance of 8,000km² of ERW from 2016 to 2025¹⁰² but did not specify how much of this should be CMR. The lack of a baseline of CMR contamination and a lack of information at a national level about ongoing survey and clearance across the country makes it difficult to understand both Vietnam's annual progress in reducing CMR contamination and how this contributes to the completion of CMR clearance.

In the past, the challenge for VNMAC was identifying and implementing the legal framework that would allow mine action stakeholders to support the decision-making process,¹⁰³ but addressing this should now be possible under the Decree 85 and Guiding Circular 195. It is hoped that their adoption will enable VNMAC to put in place systems and practices to coordinate and strengthen mine action in Vietnam, bringing national standards relating to survey and clearance operations in line with IMAS, and establishing a national information management database accessible to all mine action stakeholders to more accurately determine the extent of CMR contamination; and to set national priorities for clearance.

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

Golden West is partnering with the GICHD in a Management of Residual Explosive Remnants of War project to study the ERW ageing; develop standards for the collection, cutting, and dissection of ERW; and to draw up and pilot a long-term risk management model.¹⁰⁴

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- 3 Emails from Jan Erik Støa, Country Director, NPA, 6 April and 24 June 2020.
- 4 Email from Helene Kuperman, Programme Manager, MAG, 10 April 2020.
- 5 Email from Jan Erik Støa, NPA, 24 June 2020.
- 6 "Vietnam mine/ERW (including cluster munitions) contamination, impacts and clearance requirements", Presentation by Sr. Col. Phan Duc Tuan, People's Army of Vietnam, in Geneva, 30 June 2011; Handicap International, Fatal Footprint, the Global Human Impact of Cluster Munitions, Brussels, November 2006, p. 15.
- 7 Interview with Magnus Johansson, NPA, Hanoi, 17 April 2018, and Michael Raine, MAG, Quang Tri, 18 April 2018.
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- 9 Email from Clinton Smith, Country Director, DDG, 23 March 2017.
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- 19 Emails from Jan Erik Støa, NPA, 6 April 2020; and Helene Kuperman, MAG, 23 June 2020.

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- 22 Ibid.
- 23 Emails from Helene Kuperman, MAG, 10 April and 23 June 2020; and Jan Erik Støa, NPA, 24 June 2020.
- 24 Emails from Resad Junuzagic, NPA, 6 May 2019; and Jan Erik Støa, NPA, 6 April 2020.
- 25 Emails from Jan Erik Støa, NPA, 6 April and 24 June 2020; and Helene Kuperman, MAG, 10 April 2020.
- 26 Email from Helene Kuperman, MAG, 10 April 2020.
- 27 Email from Phạm Hoàng Hà, Country Director, PeaceTrees Vietnam (PTVN), 1 September 2020.
- 28 Email from Nils Christensen, Chief Technical Advisor, UNDP, 20 August 2020.
- 29 Interview with Nguyen Hang Phuc, Deputy Director General, VNMAC, Hanoi, 18 April 2018; telephone interview with Nils Christensen, UNDP, 23 April 2018; and emails, 3 May and 11 June 2018 and 20 August 2020.
- 30 2019 Annual Report of the ASEAN Regional Mine Action Centre (ARMAC), available at: bit.ly/30oRDVJ.
- 31 Email from Jan Erik Støa, NPA, 6 April 2020.
- 32 Email from Helene Kuperman, MAG, 10 April 2020.
- 33 Ibid.
- 34 Email from Clinton Smith, DDG, 29 May 2019.
- 35 Ibid.
- 36 Email from Søren Adser Sørensen, DDG, 5 May 2020.
- 37 Emails from Simon Rea, MAG, 24 April 2019; and Helene Kuperman, MAG, 23 June 2020.
- 38 Emails from Helene Kuperman, MAG, 10 April and 23 June 2020.
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- 41 Email from Jan Erik Støa, NPA, 6 April 2020.
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- 57 Prime Minister, "Decision on Approval of the National Mine Action Plan Period 2010–2025", Hanoi, 21 April 2010.
- 58 Email from Resad Junuzagic, NPA, 6 May 2019.
- 59 Email from Simon Rea, MAG, 16 June 2019.
- 60 Emails from Jan Erik Støa, NPA, 6 April 2020; and Simon Rea, MAG, 24 April 2019.
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- 62 Email from Simon Rea, MAG, 24 April 2019.
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- 64 Email from Simon Rea, MAG, 24 April 2019.
- 65 Email from Jan Erik Støa, NPA, 24 June 2020.
- 66 Email from Jan Erik Støa, NPA, 6 April 2020.
- 67 Email from Resad Junuzagic, NPA, 6 May 2019.
- 68 Emails from Jan Erik Støa, NPA, 6 April 2020; and Helene Kuperman, MAG, 10 April 2020.
- 69 Email from Resad Junuzagic, NPA, 6 May 2019.
- 70 Emails from Jan Erik Støa, NPA, 6 April 2020; and Helene Kuperman, MAG, 10 April 2020.
- 71 Emails from Helene Kuperman, MAG, 10 April and 23 June 2020; and Jan Erik Støa, NPA, 24 June 2020.
- 72 Email from Nils Christensen, UNDP, 20 August 2020.
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- 74 Interview with Sr. Col. Nguyen Thanh Ban, Engineering Command, Hanoi, 18 June 2013; email from Executive Office of the National Steering Committee, 6 August 2012; and interviews with mine action stakeholders, Hanoi, 16–20 April 2018; and email from Lee Moroney, Golden West Humanitarian Foundation, 22 June 2019.
- 75 Email from Søren Adser Sørensen, Programme Specialist, DDG, 5 May 2020.
- 76 Email from Clinton Smith, DDG, 29 May 2019.
- 77 Email from Helene Kuperman, MAG, 10 April 2020.
- 78 Ibid.
- 79 Email from Jan Erik Støa, NPA, 6 April 2020.
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- 81 Email from Helene Kuperman, MAG, 10 April 2020.
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- 95 Emails from Helene Kuperman, MAG, 10 April and 23 June 2020.
- 96 Emails from Jan Erik Støa, NPA, 6 April 2020; Helene Kuperman, MAG, 10 April and 23 June 2020; Søren Adser Sørensen, DDG, 5 May 2020; Phạm Hoàng Hà, PTVN, 1 September 2020; and Dinh Ngoc Vu, Vice Director, Quang Tri Provincial Mine Action Center (QTMAC), 31 August 2020. QTMAC reported that 1,851,693m² was cleared by NPA in Quang Tri province in 2019 with the destruction of 454 submunitions and 634 other UXO; a slight variance on clearance data reported by NPA directly. QTMAC also reported that 3,003,149m² was cleared by PTVN in Quang Tri province in 2019 with the destruction of 200 submunitions and 784 other UXO; a slight variance on clearance data reported by PTVN directly.
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- 98 Email from Clinton Smith, DDG, 29 May 2019; and Søren Adser Sørensen, DDG, 5 May 2020.
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- 101 Email from Lee Moroney, Golden West Humanitarian Foundation, 22 June 2019.
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KEY DEVELOPMENTS

More than 3km² of battle area were cleared in emergency clearance in 2019, along with the destruction of more than 7,000 unexploded submunitions. In April 2020, YEMAC opened a coordination centre in Aden intended to strengthen programme management in areas controlled by the internationally recognised government.

RECOMMENDATIONS FOR ACTION

- Yemen should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Yemen should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- Yemen Mine Action Centre (YEMAC) should expand support for international operators to accelerate training, survey and clearance.
- YEMAC should increase transparency by publishing regular, comprehensive reports on developments in its management, planning, and implementation of mine action.

UNDERSTANDING OF CMR CONTAMINATION

YEMAC has reported the presence of CMR in six governorates but the extent is not known. Contamination is believed to be heavy in Saada and al-Jawf governorates as well as in Amran, Hodeida, Mawit, and Sana'a governorates, including in Sana'a City.¹

Yemen had CMR contamination before 2015 but the escalation of armed conflict since 26 March 2015 has significantly increased both its extent and the threat to the civilian population, mainly as a result of airstrikes by the Saudi Arabia-led coalition.² Human Rights Watch said it had recorded Saudi air strikes using cluster munitions dating back to 2009.³ In December 2016, the organisation reported that 18 coalition attacks using cluster munitions since 2015 had killed at least 18 civilians and injured 74 more.⁴

Human rights groups have documented the use of United States (US) BLU-63 (Sana'a City), BLU-97 combined effect submunitions (Saada governorate), CBU-58 and CBU-105 sensor-fused munitions (Amran and Sana'a governorates), Brazilian Astros II munitions (Saada governorate and city), and British BL755 submunitions (Hajjah governorate). They have also reported use of ZP-39 artillery-delivered submunitions of indeterminate origin.⁵

No air strikes using cluster munitions by the Saudi-led coalition have been recorded since May 2017.⁶ The coalition, however, has continued air strikes into 2019, contributing to Yemen's already significant contamination by explosive remnants of war (ERW), including a wide range of rockets, mortars, and artillery shells.⁷ There is also a significant threat from anti-personnel and anti-vehicle mines, including mines of an improvised nature (see Mine Action Review's *Clearing the Mines 2020* report for details).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Management of mine action in Yemen is divided along the lines of the conflict that erupted in March 2015 between the Houthi (Ansar Allah) movement controlling the capital Sana'a and much of the north and west, and the internationally recognised government (IRG), operationally based in Aden and the south. The Sana'a-based inter-ministerial National Mine Action Committee (NMAC), which previously formulated national mine action policy, is no longer recognised by the IRG, which reported it had disbanded in 2019. In the south, YEMAC has fulfilled the double role of regulator responsible for policy and planning while also serving as the sole national operator.⁸

YEMAC was established in Sana'a in January 1999 as a national mine action agency and nominally maintains a national role today, with more than 1,000 staff working in 20 of Yemen's 21 governorates as at late 2019.⁹ In practice, however, YEMAC has split into two, centred round Sana'a and Aden. The Sana'a office employed around 500 staff, working in northern governorates controlled by the Houthi forces. From Aden, YEMAC operated with some 550 staff mainly active in 2019 in Abyan, Aden, Amran, Lahej, and Taiz governorates.¹⁰

In April 2020, YEMAC opened a coordination centre in Aden intended to strengthen programme management in areas controlled by the IRG. The centre is intended to facilitate cooperation with international organisations and will have responsibility for accrediting them. It will also have departments for planning, information management, and quality assurance/quality control.¹¹ The centre convened its first coordination meeting on 9 April 2020, but is expected to take up to 18 months to become fully operational as staff undergo training.¹²

YEMAC is supported by Regional Executive Mine Action Branches (REMABs) in Aden, set up in 1999; al-Mukalla (Hadramout governorate), which opened in March 2004; and Saada (April 2016).¹³ The extent to which they are still operational is not clear. YEMAC also has an office in Mokha and in 2019 opened offices in Taiz to support operations around Hodeida and in Marib for operations in al-Jawf governorate.¹⁴ YEMAC said it had set up “skeleton” offices using its own resources pending receipt of financial support for them from the United Nations Development Programme (UNDP).¹⁵

UNDP provides technical and administrative support to YEMAC through a project carried out by three international and ten national staff working from a number of different offices. The UN supported mine action in Yemen from 1999 to 2003 through a programme implemented by the UN Office for Project Services (UNOPS). From 2003, the programme came under full national management. UNDP deployed an international adviser to YEMAC at the end of 2014 to support planning and programme management. By the end of 2019, its Sanaa office comprised two international staff, including a chief technical adviser, and three national staff; in Aden it had four international and two national staff. UNDP also had national field staff in Hodaydah, Mokha and Mukalla.¹⁶

Yemen's mine action is funded by international donors. UNDP estimated Yemen's annual funding needs at some US\$16 million. At the end of 2019, total donor funding provided or pledged amounted to \$20.8 million up to the end of June 2021.¹⁷ Additionally, Saudi Arabia's King Salman Fund agreed with Dynasafe Middle East Project Management in 2018 to finance a US\$40 million demining project.¹⁸ The fund provided a further US\$30.5 million for the project for the year from 1 June 2019 to 30 May 2020¹⁹ and in June 2020 said it would fund the operation for a third year.²⁰

GENDER AND DIVERSITY

Yemen made no reference to gender and diversity in the mine action plans and priorities set out in its Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request submitted in 2019.

UNDP reported placing emphasis on mainstreaming gender principles into plans aiming for equal participation as beneficiaries, employees, and decision-makers in mine action. UNDP's goals included ensuring survey information is collected by organisations representing women and girls as well as men and boys; that data are disaggregated by gender and age; and that risk education materials address the risks associated with all gender roles.²¹

The extent to which YEMAC has embraced these ideas is unclear. In 2019, it rejected a suggestion that women might be included in training for demining teams. Employment of women in mine action, however, faces significant obstacles, in part due to their position as responsible for family care. DDG was unable to recruit some women candidates for recruitment in the face of resistance from family members. Women in management positions often face bullying and disrespect from male subordinates.²²

Among international operators, Danish Demining Group (DDG) employed a female international as head of programme and six women nationals among its 25 staff in 2019. Women employees included a risk education/non-technical survey officer and four risk education staff, three of whom were also trained as surveyors. DDG also employed a woman medic.²³

Risk education is conducted separately for women, often by women staff, to encourage women's participation. DDG has found that including women in non-technical survey/community liaison activities is difficult as men often take the lead in field activities and tend to overlook the participation of women.²⁴

INFORMATION MANAGEMENT AND REPORTING

YEMAC with support from UNDP and the Geneva International Centre for Humanitarian Demining (GICHD) was preparing a major upgrade of its information management in 2020. YEMAC has operated an Information Management System for Mine Action (IMSMA) database but its 2019 APMBC Article 5 deadline extension request described it as “outdated” and “not usable”.²⁵ The GICHD prepared to install IMSMA Core funded by the United States and UNDP, which added an information specialist to its Aden staff in 2019, expecting a soft launch of the system in mid-2020.²⁶ In the meantime, UNDP also worked with YEMAC on developing data collection forms.²⁷

PLANNING AND TASKING

Yemen does not have a current strategic plan or annual work plans for tackling mines, CMR, or ERW. Mine action in 2019 and 2020 continued to be conducted on an emergency basis. Yemen's recent conflicts "have changed the extent and complexity of contamination dramatically and in many cases, YEMAC is neither trained nor equipped to deal."²⁸

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Yemen's national mine action standards were based on the International Mine Action Standards (IMAS) when they were drawn up in 2007, predating most of Yemen's CMR contamination. YEMAC has acknowledged that the standards were obsolete and said standing operating procedures (SOPs) based on the standards were not consistently applied by its clearance personnel.²⁹ YEMAC was in contact with the GICHD on developing national standards and the new coordination centre, as one of its first acts, started reviewing a draft of interim national standards.³⁰

OPERATORS AND OPERATIONAL TOOLS

YEMAC is believed to have conducted most of the CMR clearance to date as the only operator working in Houthi-controlled areas of Yemen, which are the main areas of CMR contamination. YEMAC also remained Yemen's biggest operator, with the number of personnel reportedly rising to more than 1,000 in 2019. They included around 500 staff in the north who were active in Sana'a, the northern-most governorate of Saada, bordering Saudi Arabia, and northern districts of Almrnan governorate.³¹

SafeLane/Dynasafe, the only international organisation conducting clearance in 2019, with funding of US\$40 million from Saudi Arabia's government through the King Salman Relief and Rehabilitation Fund, reported employing 19 internationals in 2019 along with some 304 national staff, mainly seconded from YEMAC.³² It expected the number of personnel to rise to around 400 in the course of 2019 and reported operating 32 multi-task teams working on the west coast and in Lahej, Marib, and Shabwah governorates.³³ SafeLane's operating results are not recorded in YEMAC's database and it did not respond to Mine Action Review's request for information.

DEMINER SAFETY

Yemen's mine action programme personnel have sustained heavy casualties in the past two years from landmines and improvised explosive devices. Casualties attributable to CMR are, however, not known.

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

Operating in a context of continuing conflict, YEMAC gives priority to delivering an emergency response to mitigate the threat to civilians posed by all forms of explosive hazard rather than focusing on specific devices or large area clearance.

YEMAC reportedly cleared a total area of 3,115,830m² of mine- and ERW-affected area, including CMR-contaminated area, in 2019. In the process it destroyed 7,071 unexploded submunitions, compared with 79 reported destroyed the previous year.³⁴

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 - 3 Human Rights Watch, "Yemen: Cluster munitions harm civilians", 31 May 2015, at: bit.ly/32sdP0x.
 - 4 Human Rights Watch, "Brazil-made cluster munitions wound children", 23 December 2016, at: bit.ly/32ub4vE.
 - 5 Ibid.; Human Rights Watch, "Yemen: Cluster munitions harm civilians", 31 May 2015; Amnesty International, "Yemen: children among civilians killed and maimed in cluster bomb 'minefields'", 23 May 2016; and Legal Centre for Rights and Development, Sana'a, "The bombing of civilians and residential neighbourhoods with international forbidden weapons (cluster munitions)", undated but 2018.
 - 6 Office of the UN High Commissioner for Human Rights, "The situation of human rights in Yemen, including violations and abuses since September 2014", UN doc. A/HRC/36/33, 5 September 2017, p. 9.
 - 7 See, e.g., Briefing to the United Nations (UN) Security Council by Mark Lowcock, UN Emergency Relief Coordinator, New York, 15 April 2019.
 - 8 Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report (covering 2018), Form A.
 - 9 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, pp. 7, 14.
 - 10 Interview with Ameen Saleh Alaqili, Director, YEMAC, in Geneva, 13 February 2020.
 - 11 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 12.
 - 12 Email from Stephen Robinson, Senior Technical Adviser, UNDP, 27 May 2020.
 - 13 Email from Stephen Bryant, Chief Technical Advisor, UNDP, 22 July 2018.
 - 14 2019 APMBC Article 5 deadline Extension Request, pp. 5 and 22; and email from Stephen Robinson, UNDP, 21 July 2020.
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 - 16 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 9; and interview with Stephen Robinson, UNDP, in Geneva, 20 July 2020.
 - 17 Ibid., p. 27; UNDP, Phase V, "Emergency Mine Action Project", Project Document, p. 1.
 - 18 Email from Chris Clark, Global Operations Director, Dynasafe MineTech, 6 August 2018.
 - 19 "Report of the Assistance Provided by the King Salman Humanitarian Aid and Relief Center to the Republic of Yemen", undated but 2020, p. 89.
 - 20 SafeLane Global, Press release, 3 June 2020.
 - 21 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 21.
 - 22 Email from Marie-Josée Hamel, Regional Programme Advisor – Middle East, DDC, 16 April 2020.
 - 23 Ibid.
 - 24 Ibid.
 - 25 2019 APMBC Article 5 deadline Extension Request, p. 10.
 - 26 Email from Stephen Robinson, UNDP, 27 May 2020.
 - 27 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 12.
 - 28 Ibid., p. 21.
 - 29 Ibid., p. 17; and 2019 APMBC Article 5 deadline Extension Request, p. 16.
 - 30 Email from Stephen Robinson, UNDP, 27 May 2020.
 - 31 Interview with Ameen Saleh Alaqili, YEMAC, in Geneva, 13 February 2020; UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 28.
 - 32 Email from Chris Clark, SafeLane Global, 17 April 2019.
 - 33 Information from SafeLane Global website, accessed at bit.ly/2Xcc8mp.
 - 34 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 14.

OTHER AREAS

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RECOMMENDATIONS FOR ACTION

- While formal accession to the Convention on Cluster Munitions (CCM) is not currently possible for Kosovo, as it is not yet recognised as a state by the depository to the Convention, Kosovo should submit a letter to the Secretary-General of the United Nations (UN) stating that it intends to fully comply, on a voluntary basis, with the CCM.
- This should include the submission of a voluntary Article 7 transparency report on an annual basis, as Kosovo has proposed in its Mine Action Strategy 2019–2024.
- The Kosovo Mine Action Centre (KMAC) should continue its efforts to ensure timely and efficient clearance of cluster munition remnants (CMR), in line with the objectives in its latest mine action strategy and complete clearance by the end of 2024.
- KMAC should promote the implementation of its mine action strategy and mine action programme across the Kosovo government.
- KMAC and international mine action operators should increase their collaboration to seek additional funding and greater financial stability for mine action.

UNDERSTANDING OF AP MINE CONTAMINATION

At the end of 2019, contamination from CMR in Kosovo was estimated to cover a total of almost 14.36km² across 45 areas, according to KMAC.¹ This is a decrease compared to the estimated 15.37km² across 48 areas as at the end of 2018.²

Kosovo has gained a reasonably accurate assessment of CMR contamination remaining on its territory, as a result of two decades of mine action activities, including surveys in 2013 and 2015. The location of most of the contamination is well known across Kosovo's seven districts, with the exception of the northern district of Mitrovica, where operator Norwegian People's Aid (NPA) was in the process of conducting technical survey of all tasks to convert suspected hazardous areas (SHAs) to confirmed hazardous areas (CHAs) based on evidence points, to help determine a more accurate and evidence-based estimation of remaining CMR contamination in this region.³ NPA expected technical survey in Mitrovica will result in previously unrecorded CMR-contaminated areas being added to the mine action database.⁴

The HALO Trust believes Kosovo's current baseline reflects a relatively accurate picture of the remaining contamination, but suggests that it would benefit from a critical review and further assessment of the existing 2013 survey data. This would inform future targeting of survey and clearance of remaining contamination, in order to achieve completion by the target date of 2024.⁵ HALO also believes that access to NATO bombing data is critical to the sector as a means of verifying clearance, without the requirement for costly, extensive re-survey, but has experienced challenges in obtaining it.⁶

Contamination is primarily a result of conflict between the Federal Republic of Yugoslavia (FRY) and the Kosovo Liberation Army (KLA) in the late 1990s; and between the FRY and the North Atlantic Treaty Organization (NATO) in 1999.⁷ During Operation Allied Force, NATO aircraft bombed 333 locations between 24 March and 10 June 1999, dropping 1,392 bombs that released more than 295,700 submunitions.⁸ Forces of the FRY also used cluster munitions during the 1998–99 conflict in Kosovo.⁹ The failure rate of the submunitions was typically between 10% and 15%, resulting in tens of thousands of unexploded submunitions lying on and under the ground. A large clearance programme followed in 1999 under a UN mandate, but this ended prematurely in 2001, leaving many CMR-contaminated areas still needing to be cleared.¹⁰

In 2013, The HALO Trust and KMAC conducted a joint non-technical survey of cluster munition strikes and minefields across Kosovo, with the exception of four municipalities in the north. The survey identified 130 CHAs: 51 cluster munition strikes, covering 7.63km², and 79 mined areas over 2.76km².¹¹ In 2015, NPA, in coordination with KMAC and local municipality authorities, conducted non-technical survey of the four northern municipalities.¹² The NPA survey confirmed 8.9km² of CMR contamination in three of the four municipalities surveyed (Leposavic, Zubin Potok, and Zvecan). No CMR contamination was found in the fourth (Mitrovica North).¹³ On the basis of available evidence, NPA believed that 83 cluster bombs were dropped in this region, dispersing a total of 17,041 submunitions.¹⁴ In 2020–21, NPA was conducting technical survey of all CMR tasks in the northern municipalities.¹⁵

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Kosovo is contaminated with anti-personnel mines (see Mine Action Review's *Clearing the Mines 2020* report on Kosovo for further information). It also remains affected by explosive remnants of war (ERW) other than CMR.

Most ERW consists of unexploded aircraft bombs and items of abandoned explosive ordnance (AXO). However, explosive ordnance disposal (EOD) teams continue to encounter items of unexploded ordnance (UXO) dating back to World War II.¹⁶ Kosovo Protection Force (KFOR) and Kosovo Security Force (KSF) EOD teams regularly dispose of ERW in response to information provided by the public and demining organisations.¹⁷

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

In January 2011, the EOD Coordination Management Section became KMAC, responsible for managing survey and clearance of mines and ERW throughout Kosovo. KMAC prepares an annual work plan in cooperation with international demining non-governmental organisations (NGOs) and coordinates their operations along with the national demining teams of the KSF. It also coordinates survey, quality assurance (QA), risk education, public information, and victim assistance activities.¹⁸ KMAC's role and responsibilities as head of the national mine action programme under the auspices of the Ministry of Defence were established and institutionalised by Kosovo's 2012 Law on Humanitarian Demining.¹⁹

In 2019, KMAC had five permanent staff: a Director, a Senior QA Officer, a QA Inspector, a Mine Risk Education (MRE) Officer, and a Public Information Officer.²⁰

Kosovo's mine action programme is fully nationally owned, with a strong, longstanding commitment from the national government. The dedicated team of permanent national staff have been employed by KMAC since its creation. This has benefitted the programme with the retention of experience and institutional memory.²¹

NGO operators in Kosovo report having a constructive and proactive working relationship with KMAC. HALO Trust staff meet with the director of KMAC for monthly coordination meetings,²² and, in addition, KMAC's QA officers visit HALO Trust on a quarterly basis to discuss operations planning, along with conducting unannounced weekly field visits to tasks.²³

In 2019, the Kosovo government provided €990,000 in financial support to KMAC and to the KSF for mine and CMR clearance.²⁴ Kosovo's current Mine Action Strategy 2019–24 sets out the objective of intensifying resource mobilisation efforts in order to gain greater financial stability.²⁵ While a specific resource mobilisation strategy does not exist, operators reported that coordinated approaches with KMAC were made to potential donors such as the United States and the European Union.²⁶

Unfortunately, the misperception persists that mine, CMR, and other ERW clearance in Kosovo was completed in 2001, whereas the reality is that significant contamination remains. Kosovo remains a poor country and needs economic assistance to help it complete clearance in a timely manner, hopefully in less than five years if sufficient support is provided. In 2019, KMAC identified funding and logistical support as the two primary areas where it could most benefit from assistance from international donors and mine action operators.²⁷

GENDER AND DIVERSITY

Kosovo's Mine Action Strategy 2019–24 reflects the commitment of the mine action programme to ensure that gender is taken into consideration in the planning, implementation, and monitoring of all mine action projects, with a view to promoting equality and quality.²⁸ The Strategy stipulates that all mine action activities and assistance must reflect the needs of different ages and gender in a targeted and non-discriminatory manner, and that mine action and community liaison data are also to be collected and systematically disaggregated according to sex and age.²⁹

Both KMAC and KSF have gender policies in place. KMAC reported that the KSF's gender policy aims to facilitate the consultation of all groups affected by mines and ERW, expressly women and children. Within KMAC, one of its five staff (the MRE Officer) is a woman. A total of 5% of KSF staff employed in operational mine action roles were women, but none is in a managerial or supervisory position.³⁰

Kosovo's mine action strategy recognises the barriers that exist against equal employment in Kosovo society, including significant differences in employment levels between men and women, despite the number of men and women of working age being broadly similar. The Strategy notes that, as at 2019, more than four-fifths of women of working age were not employed in Kosovo's labour market, and less than one in eight women of working age has been employed annually over the past five years. The primary reasons given by women for unemployment are child and family care obligations, which traditionally fall on women in Kosovo society.

The Strategy notes the efforts of mine action operators to overcome these challenges and barriers to employment, such as through child care and parental leave, and gender-sensitive recruitment practices that encourage women to apply for positions traditionally seen as jobs for men. It further recalls the importance of employment of not only multi-gender, but also multi-ethnic survey and clearance teams and the particular benefits of recruitment in areas affected by high unemployment and poor socio-economic conditions.³¹

In 2018, The HALO Trust developed a gender policy in consultation with the Kosovo Women's Network, an advocacy network of more than 140 member organisations, including women's organisations of all ethnic backgrounds from throughout Kosovo, which was adopted in February. The policy aims both at increasing the recruitment of women, as well as retention of existing female employees. In 2019, HALO further developed this policy to include provision for increased family leave and child-care allowances for those taking care of children, in order to remove barriers to women's employment. Through the Dutch Government, HALO Trust contracted the Gender and Mine Action Programme (GMAP, a part of the Geneva International Centre for Humanitarian Demining, GICHD) to conduct gender sensitivity and leadership training in July 2019 to more than 20 managers in the Kosovo programme, to address issues of unconscious bias and inclusion.³²

In HALO Trust's Kosovo programme, 17% of employees are women, including in 14% of operational roles in survey and clearance teams, although there were no women in operational management positions in 2019. HALO also ensures that community liaison teams are gender balanced and include senior personnel fluent in relevant languages, to ensure that community liaison activities are inclusive for ethnic or minority groups.³³

Although HALO Trust is committed to increasing the number of women in the organisation generally and specifically in management roles, without recruitment or expansion opportunities, this has proved difficult. In May 2019, however, HALO trained and promoted four women to operate Handheld Stand-off Mine Detection System (HSTAMIDS)

detectors – a first for the programme. In 2020, HALO was planning to train and promote Assistant Team Leaders, and sees this as an opportunity to increase the representation of women in operational management.³⁴ Relevant mine action data are disaggregated by gender and age, and data collected post-clearance is also disaggregated to ensure the understanding and analysis of impact of mine action activities takes gender into consideration.³⁵

NPA reported that a target of 25% female staff was in place, and in 2019, 21% of its staff were women, including one of four team leaders, two of six medics, and one of four staff in the management team. The proportion of women had subsequently increased to 27% by September 2020, with more women in management positions. Women were especially encouraged to apply for staff positions, and given priority over male applicants with equivalent skills and experience. NPA confirmed its survey and community liaison teams were gender balanced and ensured that the participation of all relevant social groups is always taken into account when conducting activities in local communities.³⁶ NPA's efforts to recruit and train multi-ethnic survey and clearance teams was also been a critical factor in allowing the deployment of teams in areas of particular ethnic and political sensitivities, extending the reach of mine action operations in north Kosovo, while also building bridges and friendships between the individual staff members and through their community liaison activities.³⁷

According to KMAC, Kosovo's baseline of CMR contamination has been established through inclusive consultation with women, girls, boys, and men, including, where relevant, from minority groups.³⁸

INFORMATION MANAGEMENT AND REPORTING

KMAC uses the Information Management System for Mine Action (IMSMA) New Generation version for its national mine action database. Data are disaggregated between mines, CMR, and other ERW.³⁹ Operators were positive in their assessments of the quality and accessibility of data contained in the database and of KMAC's information management systems in general. Operators report to KMAC on a weekly basis.⁴⁰ However, there continued to be discrepancies between land release data reported to Mine Action Review by clearance operators, compared to data reported by KMAC.

According to its most recent mine action strategy, KMAC intended, as a means to show its commitment to the CCM, to submit voluntary Article 7 transparency reports on an annual basis.⁴¹ In disappointing news, KMAC subsequently advised Mine Action Review that Kosovo would only start submitting Article 7 reports when it becomes a member of the UN.⁴²

PLANNING AND TASKING

The GICHD supported the development of Kosovo's new Mine Action Strategy for 2019–24. The strategy, formally approved in January 2019 and launched by the Ministry of Kosovo Security Services on 4 April 2019, has three goals:

- Mine/ERW threats managed and reduced
- Communication and awareness raising
- Management of residual contamination.

The strategy declares that all known mined and CMR-contaminated areas will be addressed by the end of 2024, leaving only residual contamination to be managed accordingly. It contains annual projections for CMR clearance, including:

- all high-priority CMR tasks (four as at October 2018) will be cleared by 2020;
- all medium-priority CMR tasks (thirty as at October 2018) will be cleared by 2022; and
- all low-priority CMR tasks (sixteen as at October 2018) will be completed by 2024.⁴³

NPA reported that it had changed its approach in 2020 to focus on technical survey of all tasks and therefore would not clear all the high-impact CMR tasks in 2020.⁴⁴

The strategy states it is based on a number of assumptions, including that the necessary funding will be secured and that no new mined or CMR-contaminated areas are identified. It notes, however, that “so far each year 3–4 different affected areas have been reported” and that should this trend continue, capacity and progress will need to be reassessed with regards to the 2024 deadline.⁴⁵

As per the strategy, KMAC will develop annual operational work plans to implement the strategy’s goals.⁴⁶ KMAC will also request an external mid-term review of the strategy in 2022 to evaluate progress and make any adaptations according to contextual changes if required.⁴⁷

In 2019, KMAC confirmed that it had developed annual operational work plans to target anti-personnel mined areas, according to impact-based criteria, including risk reduction, development priorities, and poverty reduction, along with the findings of a nationwide baseline socio-economic impact assessment carried out in 2018 by KMAC, with the support

of The HALO Trust.⁴⁸ The mine action strategy for 2019–24 is in alignment with the objectives of Kosovo’s National Development Strategy 2016–2021.⁴⁹

In 2019, The HALO Trust developed a new prioritisation system that takes into account the “community profile” for a task. This system draws on several factors, such as socio-economic status, planned land use, government development plans, and demographics. All information is collected from government and public data as well as from extensive community survey.⁵⁰

While NPA confirmed that its operations in northern Kosovo continued to focus on high-impacted areas, it noted that it was also important for NPA to ensure both ethnic Serbian- and Albanian-populated areas are prioritised equally, with sensitivity towards political, cultural, and ethnic affiliations.⁵¹

KMAC reported that it planned to conduct technical survey with NPA in 2020 of 21 tasks in the northern municipalities, in addition to clearance of eight CMR-contaminated areas.⁵² However, the impact of the COVID-19 pandemic and the resulting halting of operations for several months, means that technical survey will continue into 2020.⁵³

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

National mine action standards for land release are in place in Kosovo, which according to KMAC are in accord with the International Mine Action Standards (IMAS).⁵⁴

Kosovo’s national mine action standards set the standard clearance depth for battle area clearance (BAC) at 50cm.⁵⁵ There has been a discussion over whether this standard clearance depth could be reduced to 30cm in certain forested and stony areas, which would enable detectors to be set to a medium- rather than high-sensitivity setting and potentially result in fewer false indicators needing to be investigated.⁵⁶ However, KMAC informed Mine Action Review in 2019 that the BAC clearance depth of 50cm is necessary as many of the areas targeted with cluster munitions were especially wet and muddy, as the bombing campaign took place during a period of heavy rain, making it possible for submunitions to penetrate to higher than normally expected depths.⁵⁷ It did, though, state that on certain tasks where the ground was entirely stony, a reduction in search depth could be considered.⁵⁸

Data from NPA and HALO Trust largely support KMAC’s caution. The HALO Trust’s analysis of devices found by depth in 2008–18 show that 22% of all items found by HALO Trust teams were at a depth of 30cm or deeper, but this included buried cluster bomb units with submunitions still inside.⁵⁹ When removing full containers from the analysis, HALO found that 96% of items were found 30cm or above and that the average depth of items found through clearance was 12.4cm.⁶⁰ NPA’s clearance statistics show that 12% of all submunitions found in its operations were found at depths greater than 30cm. At the same time, NPA raised the issue of the potential threat that explosive items located deeper than 30cm might pose and whether the expected future ground use could be considered when setting the search depth.⁶¹ HALO agrees on this issue and has collected data on planned post-clearance land use, including crop cultivation depth.⁶²

A 2014 evaluation of Kosovo’s mine action programme, conducted on behalf of the International Trust Fund (ITF) Enhancing Human Security, concluded that an increase in capacity and improvements to land release methodology and equipment deployed would be necessary if Kosovo were to complete clearance operations by 2024. Since the 2014 evaluation, a number of significant improvements have been introduced to the mine action programme, including the introduction of HSTAMID detectors by The HALO Trust, which have advanced operational productivity.⁶³ Both The HALO Trust and NPA were also using large-loop detectors on certain CMR tasks, which enabled further productivity increases.⁶⁴

In 2018, in another significant advancement in land release efficiency, KMAC formally approved the implementation of Cluster Munition Remnants Survey (CMRS) methodology by NPA to carry out technical survey activities on CMR-contaminated areas in Kosovo. According to this methodology, which NPA has modified to take into account the specific conditions in Kosovo, and in line with the IMAS, operators are permitted to enter a cluster munition strike area and to walk on ground with subsurface contamination, increasing the efficiency of the survey process and offering the ability to accurately define confirmed hazardous areas.⁶⁵

HALO Trust, which displayed some hesitancy to implement a CMRS approach in 2017, reported in 2019 that it was interested in defining evidence-based clearance standards and felt there could be scope to explore and improve survey and clearance standards for addressing CMR, especially in regard to recent developments with the implementation of CMRS methodology in South-East Asia.⁶⁶ It believed, however, that as general survey has already been conducted in HALO Trust’s areas of operations, implementing CMRS would duplicate work already carried out to define confirmed hazardous areas.⁶⁷

OPERATORS AND OPERATIONAL TOOLS

In 2019, Kosovo's national mine action programme's capacity consisted of two international operators, The HALO Trust and NPA, and national operator, the KSF. HALO Trust and NPA continued to conduct BAC in 2019, along with the KSF, which also provided a round-the-clock EOD emergency response.⁶⁸ KFOR also supports the KSF and Kosovo Police with EOD response tasks and organising mine and ERW demolitions in Mitrovica and the north of Kosovo, including NPA's areas of operations.⁶⁹ The demining season is from the end of March to the end of November, due to weather conditions.⁷⁰

HALO Trust's operational personnel are cross-trained for mine clearance and BAC and can move readily between activities. On average, in 2019, HALO Trust deployed three clearance teams totalling 27 deminers to CMR clearance tasks – an overall decrease of 1.2 teams compared to the previous year, as a result of donor requirements.⁷¹

NPA's area of operations cover Kosovo's five northern municipalities of Leposavic, Mitrovica, Podujevo, Zubin Potok, and Zvecan.⁷² In 2019, NPA deployed four teams: one six-person team dedicated to technical survey and three six-person teams to both technical survey and clearance. This represented a doubling of the number of teams, from two to four, but as the team size in 2019 decreased from 8 to 6, overall operational capacity only increased from 16 in 2018 to 24 in 2019.⁷³ NPA deploys local teams of mixed ethnicities, making it possible for NPA to work in previously inaccessible areas in north Kosovo and deploy teams to both ethnic Serbian and ethnic Albanian areas through the multi-ethnic composition of the teams.⁷⁴

KSF operated five manual clearance teams in 2019, totalling 60 deminers.⁷⁵ KFOR supports the KSF and Kosovo Police with EOD response tasks and organising mine and ERW demolitions in Mitrovica and the north of Kosovo.⁷⁶

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2019

A total of more than 2.2km² of CMR-contaminated area was released in 2019: nearly 1.3km² through clearance; 0.4km² through technical survey; and 0.5km² through non-technical survey.⁷⁷

KMAC reported that one CHA containing CMR, of 60,000m² in size, was added to the database in 2019.⁷⁸

SURVEY IN 2019

A total of 911,795m² of cluster munition-contaminated area was released through survey in 2019, by NPA in north of Kosovo. Of this, 542,100m² was cancelled through non-technical survey and 369,695m² was reduced through technical survey in 2019.⁷⁹

The total amount of CMR-contaminated area released through survey in 2019 was an increase on 2018, when 436,685m² was reduced through technical survey, but when no area was cancelled through non-technical survey.⁸⁰

As noted above, KMAC reported that an CHA of 60,000m² was added to the database of CMR contamination in 2019.⁸¹

CLEARANCE IN 2019

Collectively, the KSF, The HALO Trust, and NPA cleared 1.26km² of CMR contamination in 2019, with the destruction of 155 submunitions (see Table 1).⁸² One additional submunition was destroyed by KSF in 2019, during an EOD response task.⁸³

This represents a small increase on the 1.24km² of CMR contamination cleared in 2018, when 212 submunitions were destroyed.⁸⁴

Table 1: CMR clearance in 2019⁸⁵

Operator	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
KSF	135,910	4	707
HALO	614,203	133	0
NPA	510,104	18	5
Totals	1,260,217	155	712

According to KMAC, one CMR task cleared in 2019 was found not to contain CMR.⁸⁶

The HALO Trust saw a 13% decrease on its CMR clearance output in 2019, compared to the previous year, due to a reduction in clearance personnel.⁸⁷

NPA saw an increase of nearly 48% on the area of CMR-contaminated cleared in 2018, due to increased clearance capacity. However, the number of submunitions found and destroyed decreased in 2019, due to NPA no longer working in the core area of cluster munition attacks, as it had in 2018.⁸⁸

As Kosovo has robust national procedures for the management of explosives, the KSF, with support from KFOR in northern Kosovo, carries out the demolition of CMR and items of UXO found by both The HALO Trust and NPA.⁸⁹

PROGRESS TOWARDS COMPLETION

Kosovo cannot formally adhere to the CCM and therefore does not have a specific clearance deadline under Article 4. Nonetheless, it has obligations under international human rights law to clear CMR as soon as possible.

As stated in Kosovo's Mine Action Strategy 2019–24, which sets completion of mine and cluster munition clearance by the end of 2024, completion will only be achievable if sustained funding is secured.⁹⁰ Specific concerns are elaborated in the strategy about the need to upgrade old equipment, including vehicles to proceed without unnecessary stand-downs or costly repairs.⁹¹

The HALO Trust highlighted the need for a review of the current data on CMR-contaminated areas, including an evaluation of survey polygons, and application of efficient land release methodologies, in order to ensure coordinated and cost-effective targeting of clearance.⁹²

As at April 2020, KMAC reported that it still expects to clear all known CMR-contaminated areas by the end of 2024.⁹³ However, less than 5km² of CMR has been cleared in the last five years (see Table 2) and international clearance operators caution that capacity will need to be increased and sustained over the strategy period, in order to meet the 2024 target date.⁹⁴

HALO Trust was doubling its CMR clearance capacity to six teams in 2020, starting in March 2020, primarily due to a multi-year contract for US funding.⁹⁵ Similarly, NPA was also increasing technical survey/clearance capacity from four teams to seven in 2019, thanks to a US contract for 2020–23, and it also had two personnel dedicated to non-technical survey in 2020.⁹⁶

While increasing and sustaining funding remained the primary obstacle, challenges were also posed by poor weather and difficult terrain, according to NPA. It also noted that additional CMR-contaminated areas were still being recorded in its areas of operations as a result of ongoing survey.⁹⁷

In addition, the COVID-19 pandemic has also impacted Kosovo's mine action programme. From mid-March to mid-May the entire mine action sector was closed at the direction of KMAC, as the government implemented strict lock-down measures across the country, resulting in lost productivity which will impact targets. Operators were able to partially phase back operations in early May and fully by June 2020. HALO is also avoiding use of remote camps due to the COVID-19 pandemic which will also affect its original 2020 work plan.⁹⁸

Table 2: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2019	1.26
2018	1.24
2017	0.88
2016	0.47
2015	0.34
Total	4.19

Assuming the target is met, completion of CMR clearance in 2024 would be 25 years after the end of the conflict between the FRY forces and NATO and more than 20 years after the UN claimed that clearance was largely complete.

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

According to Kosovo's Mine Action Strategy 2019–24, a separate national strategy on the management of residual contamination will be developed by KMAC by 2023, in collaboration with other national actors. This will clarify roles and responsibilities in order to manage what is expected to be a long-term residual contamination problem.⁹⁹ HALO Trust highlighted the importance of establishing a common definition for residual risk – an existing priority for KMAC in its national strategy.¹⁰⁰

1 Email from Ahmet Sallova, Head, KMAC, 16 April 2020.

2 Email from Ahmet Sallova, KMAC, 30 April 2019.

3 Emails from Terje Eldøen, Country Director, NPA, 26 August 2020; and Ahmet Sallova, KMAC, 16 April 2020.

4 Email from Terje Eldøen, NPA, 26 August 2020.

5 Email from Olivia Meader, Programme Manager, HALO Trust, 22 May 2020.

6 Emails from Olivia Meader, HALO Trust, 22 May and 3 September 2020.

7 See United Nations Mission in Kosovo (UNMIK), "UNMIK OKPCC EOD Management Section Annual Report 2005", Pristina, 18 January 2006, p. 2; and International Committee of the Red Cross (ICRC), *Explosive Remnants of War, Cluster Bombs and Landmines in Kosovo*, Geneva, rev. June 2001, p. 6.

8 ICRC, *Explosive Remnants of War, Cluster Bombs and Landmines in Kosovo*, rev. June 2001, pp. 4 and 6; and The HALO Trust, "Action on cluster munitions in Kosovo", 10 September 2015, at: bit.ly/30P1X70.

9 Human Rights Watch (HRW) and Landmine Action, *Banning Cluster Munitions Government Policy and Practice*, Mines Action Canada, Ottawa, 2009, p. 238; and ICRC, *Explosive Remnants of War, Cluster Bombs and Landmines in Kosovo*, rev. June 2001, p. 6.

10 A. Moore, The HALO Trust, "Action on cluster munitions in Kosovo", Side event, First CCM Review Conference, Dubrovnik, 10 September 2015.

11 Ibid.

12 NPA, *Cluster Munition Remnants in Northern Kosovo: non-technical survey of contamination and impact*, September 2015; and email from Goran Peršić, NPA Bosnia and Herzegovina, 13 May 2016.

13 Ibid.

14 NPA, *Cluster Munition Remnants in Northern Kosovo: non-technical survey of contamination and impact*, September 2015.

15 Emails from Terje Eldøen, NPA, 26 August and 1 September 2020.

16 UNMIK, "OKPCC EOD Management Section Annual Report 2008", Pristina, 12 January 2009, p. 4.

17 Email from Ahmet Sallova, KMAC, 1 August 2012.

18 Email from Ahmet Sallova, KMAC, 1 August 2012.

19 Emails from Ahmet Sallova, KMAC, 16 June and 3 July 2017; and Ministry of Defence, "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 3.

- 20 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 21 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, pp. 5–6.
- 22 Emails from Olivia Meader, HALO Trust, 22 May 2020; and Ahmet Sallova, KMAC, 16 April 2020.
- 23 Email from Olivia Meader, HALO Trust, 22 May 2020.
- 24 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 25 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 14.
- 26 Email from Terje Eldøen, NPA, 25 April 2019.
- 27 Email from Ahmet Sallova, KMAC, 30 April 2019.
- 28 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 8.
- 29 Ibid.
- 30 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 31 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, pp. 8–9.
- 32 Email from Olivia Meader, HALO Trust, 22 May 2020.
- 33 Emails from Olivia Meader, HALO Trust, 1 May 2019 and 22 May 2020.
- 34 Email from Olivia Meader, HALO Trust, 22 May 2020.
- 35 Email from Olivia Meader, HALO Trust, 1 May 2019; and "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 8.
- 36 Email from Terje Eldøen, NPA, 25 April 2019.
- 37 Email from Terje Eldøen, NPA, 25 April 2019 and 1 September 2020.
- 38 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 39 Email from Ahmet Sallova, KMAC, 30 April 2019.
- 40 Emails from Olivia Meader, HALO Trust, 1 May 2019; and Terje Eldøen, NPA, 25 April 2019.
- 41 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 13.
- 42 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 43 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 12.
- 44 Email from Terje Eldøen, NPA, 1 September 2020.
- 45 Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, pp. 9–10.
- 46 Ibid.
- 47 Ibid., p. 16.
- 48 Emails from Ahmet Sallova, KMAC, 30 April 2019; and Tom Welling, HALO Trust, 7 May 2018.
- 49 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 1.
- 50 Email from Olivia Meader, HALO Trust, 22 May 2020.
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- 52 Email from Ahmet Sallova, KMAC, 16 April 2020.
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- 54 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 55 Email from Ahmet Sallova, KMAC, 4 May 2018.
- 56 Ibid.
- 57 Interview with Ahmet Sallova, KMAC, Pristina, 5 April 2019.
- 58 Ibid.
- 59 Email from Olivia Meader, HALO Trust, 21 June 2019.
- 60 Email from Olivia Meader, HALO Trust, 3 September 2020.
- 61 Emails from Terje Eldøen, NPA, 25 April 2019; and Olivia Meader, HALO Trust, 1 May 2019.
- 62 Email from Olivia Meader, HALO Trust, 3 September 2020.
- 63 Emails from Olivia Meader, HALO Trust, 1 May 2019; and Terje Eldøen, NPA, 25 April 2019.
- 64 Ibid.
- 65 Interview with Terje Eldøen, NPA, Pristina, 5 April 2019; and email, 25 April 2019.
- 66 Emails from Ash Boddy, HALO Trust, 5 May 2017; and Olivia Meader, HALO Trust, 1 May 2019.
- 67 Email from Olivia Meader, HALO Trust, 21 June 2019.
- 68 Email from Ahmet Sallova, KMAC, 16 April 2020; and "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 3.
- 69 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 4; and interview with Ahmet Sallova, KMAC, Pristina, 5 April 2019.
- 70 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 3.
- 71 Email from Olivia Meader, HALO Trust, 22 May 2020.
- 72 Email from Terje Eldøen, NPA, 26 August 2020.
- 73 Ibid.
- 74 Email from Terje Eldøen, NPA, 25 April 2019; and "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 4.
- 75 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 76 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 4; and interview with Ahmet Sallova, KMAC, Pristina, 5 April 2019.
- 77 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 78 Ibid.
- 79 Email from Terje Eldøen, NPA, 26 August and 1 September 2020. In addition, HALO Trust reported reducing 5,765m² on tasks in Gjakove, following the completion of clearance. Email from Olivia Meader, HALO Trust, 22 May 2020.
- 80 Emails from Ahmet Sallova, KMAC, 30 April and 17 June 2019; Terje Eldøen, NPA, 25 April 2019; and Olivia Meader, HALO Trust, 1 May 2019. According to HALO Trust, "it should be noted that HALO does not employ technical survey as used in the CMRS. The above statistics only refer to those areas released by reduction from technical survey". NPA reported a total of 407,859m² reduced by technical survey in 2018, of which only 22,848m² was reported as completed, in a task in Gazi Voda lake. NPA reported that the other 385,011m² reduced by technical survey were part of tasks not yet completed at the end of 2018.
- 81 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 82 Ibid.
- 83 Ibid.
- 84 Emails from Ahmet Sallova, KMAC, 30 April 2019; and Olivia Meader, HALO Trust, 1 May 2019.
- 85 Emails from Ahmet Sallova, KMAC, 16 April 2020 and Olivia Meader, HALO Trust, 22 May 2020. NPA reported clearing 495,827m², with the destruction of 22 submunitions and 13 items of other UXO. Email from Terje Eldøen, NPA, 26 August 2020.
- 86 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 87 Email from Olivia Meader, HALO Trust, 22 May 2020.
- 88 Email from Terje Eldøen, NPA, 26 August 2020.
- 89 Interview with Ahmet Sallova, KMAC, Pristina, 5 April 2019.
- 90 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 6.
- 91 Ibid.
- 92 Email from Olivia Meader, HALO Trust, 22 May 2020.
- 93 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 94 Emails from Olivia Meader, HALO Trust, 1 May 2019; and Terje Eldøen, NPA, 25 April 2019.
- 95 Email from Olivia Meader, HALO Trust, 22 May 2020.
- 96 Email from Terje Eldøen, NPA, 26 August 2020.
- 97 Email from Terje Eldøen, NPA, 25 April 2019.
- 98 Email from Olivia Meader, HALO Trust, 3 September 2020.
- 99 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 15.
- 100 Email from Olivia Meader, HALO Trust, 22 May 2020.

RECOMMENDATIONS FOR ACTION

- The Nagorno-Karabakh authorities should make a formal commitment to respect and implement the Convention on Cluster Munitions (CCM).
- The Nagorno-Karabakh authorities and both Armenia and Azerbaijan should refrain from any further use of cluster munitions.
- Nagorno-Karabakh should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- Survey and clearance of CMR should resume and the Nagorno-Karabakh authorities should provide funding for the work.

UNDERSTANDING OF AP MINE CONTAMINATION

Nagorno-Karabakh has extensive contamination by CMR but the extent has not been determined precisely. HALO Trust reported 213 confirmed hazardous areas (CHAs) covering 70.48km² at the end of 2019 (see Table 1). The total area was marginally less overall than a year earlier, largely as a result of correcting an error in 2018 data for Askeran, but HALO also recorded a slight increase in the number and size of CMR-affected areas in Hadrut.¹

Cluster bombs were dropped extensively across Nagorno-Karabakh by the Azerbaijani Air Force during the 1988 conflict between Azerbaijan and Armenia. Following the cease fire in 1994 tensions flared up again in April 2016 when fighting broke out briefly along the Line of Contact (LOC). While ground fighting was confined to areas close to the LOC, artillery fire penetrated more than 10km into Nagorno-Karabakh, and included use of cluster munitions. The HALO Trust calculated the four days of hostilities added 2.4km² of CMR contamination, all of which has now been cleared.² In late September 2020, hostilities broke out again, involving Nagorno-Karabakh, Armenia and Azerbaijan, with reports that cluster munitions were again being fired into Stepanakert. Amnesty International ascribed the new use to Azerbaijan.³

Table 1: Cluster munition-contaminated area by region (at end 2019)⁴

District	CHAs	Area (m ²)
Askeran	56	20,017,656
Hadrut	29	10,667,696
Lachin	17	8,500,000
Martakert	45	11,701,498
Martuni	57	15,094,233
Shushi	8	4,000,000
Stepanakert	1	500,000
Totals	213	70,481,083

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Nagorno-Karabakh does not have a national mine action centre. The HALO Trust established the Nagorno-Karabakh Mine Action Centre (NKMAC) in 2000, which it hoped would consolidate all mine action-related information and respond to requests from the government ministries, non-governmental organisations (NGOs), and local communities. The project did not, however, attract local support and has been moribund for several years.⁵

Proposals for establishing a national centre were supported by the Ministry of Foreign Affairs in meetings with The HALO Trust at the end of 2019 and discussions continued in 2020. HALO reported constructive talks on the issue with the State Emergency Services and the Ministry of Agriculture.⁶

A mine action coordination committee is responsible for liaising between the local authorities and The HALO Trust. Regular coordination committee meetings were held between the local authorities, HALO Trust, and the International Committee of the Red Cross (ICRC) until 2018 when the head of the committee was moved to a new post. The position remains vacant, with HALO Trust continuing to lobby for a suitable candidate to fill the role.⁷

The Nagorno-Karabakh authorities do not provide The HALO Trust with any funding to clear mined areas.⁸

GENDER AND DIVERSITY

HALO's Nagorno-Karabakh programme follows the organisation's gender and diversity policies, providing equal access to employment for women and engaging them in management and operational roles.⁹ Its most senior national staff member is female and women have been employed in both survey and clearance. HALO appointed the first woman for non-technical survey in 2019 but from 2020, all HALO survey teams were planned to include at least one woman. Women made up around 13% of HALO's staff in 2019, about the same as in the previous year, and expected to hire more women, subject to the availability of funding.¹⁰

All groups affected by CMR and anti-personnel mines, including women and children, are said to be consulted during survey and community liaison activities. Relevant mine action data is disaggregated by sex and age.¹¹ But gender is said to be not taken into account in the prioritisation, planning, and tasking of survey and clearance activities.¹²

INFORMATION MANAGEMENT AND REPORTING

Nagorno-Karabakh does not have a mine action information management system; The HALO Trust operates its own database.¹³

No central mechanism exists for systematic sharing of data on mine clearance, underscoring the value of a mine action authority. The emergency services share information on explosive ordnance disposal (EOD) call-outs and advance notice of demolitions.¹⁴ The Nagorno-Karabakh Army Liaison Officer shares information with The HALO Trust on items found, incidents, CHAs, and clearance on a regular basis. HALO is not authorised to share this data with others.¹⁵

PLANNING AND TASKING

There is no national mine action strategy currently in place in Nagorno-Karabakh.¹⁶

HALO Trust's work plan has focused on completing existing tasks, giving priority to areas where confirmed accidents indicate the greatest humanitarian threat and where cleared areas are most likely to be put to use. HALO Trust started a nationwide survey in 2019, focusing on Martakert as Nagorno-Karabakh's most heavily mine-contaminated region. When new information of contamination is received, such as a mine find or incident, HALO tasks a non-technical survey team to respond within 48 hours. Otherwise, the survey was due to continue in 2020 on a region-by-region basis.¹⁷

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Nagorno-Karabakh has no local mine action standards. The Nagorno-Karabakh police were planning to lobby the government to develop standards while The HALO Trust planned to support calls for national standards as part of discussions on creating a mine action authority.¹⁸

In the meantime, The HALO Trust follows its internal standing operating procedures.¹⁹

OPERATORS AND OPERATIONAL TOOLS

The HALO Trust has been the main organisation conducting land release in Nagorno-Karabakh since it started working there in 2000. The Nagorno-Karabakh Emergency Service, formerly known as the Rescue Service, conducts EOD spot tasks and has reportedly conducted some battle area clearance (BAC). One Nagorno-Karabakh army unit conducts limited demining.²⁰

Clearance is conducted mostly in the summer months between May and October. In 2019, HALO Trust operated with a total staff that peaked at 242 at the end of September before winding down in line with normal practice to 159 at the end of the year. At the end of 2019, HALO had 12 manual clearance teams with a total of 79 deminers who conduct both mine clearance and BAC together with four non-technical survey teams each with four personnel and two mechanical teams with a total of eight personnel. Uncertainty over the level of continued United States (US) funding raised the possibility that HALO Trust would reduce staff further in 2020 rather than build up capacity over the summer.²¹

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2019

HALO Trust did not conduct any non-technical or technical survey of CMR-affected areas in 2019 but cleared 51,160m² in Askeran, destroying a single submunition.²²

No target date has currently been set for the clearance of all CMR contamination in Nagorno-Karabakh.²³ HALO Trust currently prioritises clearance of mines over CMR in compliance with restrictions imposed by donors. Fundraising for CMR clearance has proved challenging due to Nagorno-Karabakh's international isolation and the territorial restrictions that donors often place on funding.²⁴

CMR has dropped dramatically since 2014 as a result of lack of funding (see Table 2).

The outbreak of hostilities in late September 2020 raised concerns that significant new CMR contamination could be added, in addition to the direct and significant risk to civilians arising from the new use of cluster munitions.

Table 2: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2019	0.05
2018	0
2017	1.06
2016	3.28
2015	2.91
Total	7.30

- 1 Emails from Rob Syfret, Programme Manager, HALO Trust, 7 May, and 4 and 7 September 2020.
- 2 Emails from Amasia Zargarian, Programme Support Officer, HALO Trust, 4 May 2018; and Asqanaz Hambardzumyan, HALO Trust, 26 April 2019.
- 3 Amnesty International, "Armenia/Azerbaijan: Civilians must be protected from use of banned cluster bombs", 5 October 2020, at: [bit.ly/30DvCl3](https://www.amnesty.org/en/documents/eur01/001/20201005/).
- 4 Emails from Rob Syfret, HALO Trust, 7 May, and 4 and 7 September 2020.
- 5 Emails from Andrew Moore, HALO Trust, 28 June 2013; and Asqanaz Hambardzumyan, Field Officer, HALO Trust, 26 April 2019.
- 6 Emails from Rob Syfret, HALO Trust, 13 May and 4 September 2020.
- 7 Emails from Andrew Moore, HALO Trust, 26 May 2016; and Asqanaz Hambardzumyan, HALO Trust, 26 April 2019.
- 8 Email from Asqanaz Hambardzumyan, HALO Trust, 10 April 2019.
- 9 Ibid.
- 10 Email from Rob Syfret, HALO Trust, 7 May 2020.
- 11 Email from Asqanaz Hambardzumyan, HALO Trust, 10 April 2019.
- 12 Ibid.
- 13 Email from Rob Syfret, HALO Trust, 7 May 2020.
- 14 Email from Rob Syfret, HALO Trust, 13 May 2020.
- 15 Email from Asqanaz Hambardzumyan, HALO Trust, 10 April 2019.
- 16 Ibid.
- 17 Email from Rob Syfret, HALO Trust, 7 May 2020.
- 18 Email from Asqanaz Hambardzumyan, HALO Trust, 26 April 2019.
- 19 Email from Rob Syfret, HALO Trust, 7 May 2020.
- 20 Emails from Rob Syfret, HALO Trust, 7 May 2020; and Amasia Zargarian, HALO Trust, 4 May 2018.
- 21 Email from Rob Syfret, HALO Trust, 7 May 2020.
- 22 Email from Rob Syfret, HALO Trust, 7 May 2020.
- 23 Email from Asqanaz Hambardzumyan, HALO Trust, 10 April 2019.
- 24 The HALO Trust, "Our role in Nagorno-Karabakh", accessed 10 April 2019.

RECOMMENDATIONS FOR ACTION

- The Sahrawi Arab Democratic Republic (SADR) should reaffirm its written commitment to respect and implement the Convention on Cluster Munitions (CCM) and to clear all cluster munition remnants (CMR) contamination east of the Berm as soon as possible.
- The SADR should comply with its obligations under international human rights law to clear CMR on territory under its jurisdiction or control as soon as possible.
- A resource mobilisation plan should be developed with the aim of attracting international donor support.
- Greater support should be provided to the Saharawi Mine Action Coordination Office (SMACO) to enable it to continue to coordinate mine action in Western Sahara, east of the Berm, and to ensure that capacity development efforts are not lost.
- Mine action in Western Sahara must not become forgotten or overlooked by the international mine action community. Support must still be given to address remaining mine, CMR, and other explosive remnants of war (ERW) contamination.
- SMACO should revise its strategy to include a more realistic date for completion of clearance of CMR with annual survey and clearance targets, and a detailed budget.

UNDERSTANDING OF AP MINE CONTAMINATION

According to the United Nations Mine Action Service (UNMAS), at the end of 2019 Western Sahara east of the Berm¹ had a total of 40 confirmed hazardous areas (CHAs) containing CMR, with a total size of 1.64km².² This is a significant decrease in confirmed CMR contamination from the 79 areas totalling 2.8km² reported by UNMAS as remaining at the end of 2018.³

Both the north and south of Western Sahara east of the Berm are still affected, as summarised in Table 1.⁴

Table 1: Cluster munition-contaminated area east of the Berm (at end 2019)⁵

Region	CHAs	Area (km ²)
North	21	0.35
South	19	1.29
Totals	40	1.64

Norwegian People's Aid (NPA) reported completing clearance of all known and accessible CMR contamination in its areas of operations in Bir Lahlou in December 2018.⁶

The Royal Moroccan Armed Forces used both artillery-fired and air-dropped cluster munitions against Polisario Front Military forces during their conflict in Western Sahara from 1975 to 1991. According to SADR, the Royal Moroccan Armed Forces employed BLU-63, M42, and Mk118 submunitions at multiple locations in Bir Lahlou, Dougaj, Mehaires, Mijek, and North Wadis.⁷

While CMR clearance had been projected to be completed by the end of 2012,⁸ discovery of previously unrecorded contaminated areas meant this target date was not met. According to UNMAS, new strike areas continued to be identified in 2013–19 as mine action activities continued and additional information was received from local populations.⁹ In 2019, 20 CHAs totalling 0.52km² of previously unrecorded contamination were found and added to the database.¹⁰

Of the 40 CHAs, 6 cluster munition strike areas with a total size of 0.5km² are located inside the buffer strip and are inaccessible for clearance.¹¹ The size of these six areas may increase if restrictions on access to the buffer strip are lifted, allowing survey and clearance to be conducted.¹² Clearance of mines and ERW in the buffer strip, restricted areas, and the berm itself is not foreseen in MINURSO mission agreements, which according to the UN, considerably limits the ability of MINURSO military observers to patrol.¹³

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Western Sahara also remains significantly affected by mines and ERW other than CMR due to the conflict (see Mine Action Review's *Clearing the Mines 2020* report on Western Sahara for further information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

UNMAS Western Sahara, formerly the MINURSO Mine Action Coordination Centre (MACC), facilitates MINURSO monitoring of the ceasefire and ensures the safe passage of UN personnel. On 30 October 2019, MINURSO's mandate was extended for an additional 12 months until 30 October 2020 under UN Security Council Resolution 2494 (2019). UNMAS Western Sahara serves as the UN focal point for mine action activities within the MINURSO area of operations. Its contracted teams work only in areas east of the Berm. The Royal Moroccan Army conducts its own demining in areas west of the Berm. In 2013–14, the Polisario Front, with UN support, established SMACO, which is responsible for coordinating mine action activities in Western Sahara east of the Berm, excluding the buffer strip.¹⁴

In 2019, UNMAS Western Sahara had a grant of \$53,937 to cover capacity building and some operating expenses for SMACO. UNMAS also supported SMACO to develop its own internal strategy for 2019–23, which includes a communications and resource mobilisation strategy.¹⁵

GENDER AND DIVERSITY

UNMAS has reported that gender policies are implemented in accordance with UNMAS, the UN Office for Project Services (UNOPS), and MINURSO guidelines, as well as with direction from the Polisario Front.¹⁶ UNMAS also reported that gender has been mainstreamed into Western Sahara's national mine action work plans and the SMACO 2019–23 mine action strategy.¹⁷ During survey, efforts are made to consider the needs of men, women, girls, and boys to ensure more effective and efficient operations, despite challenges presented by conducting survey activities targeting Bedouin populations.¹⁸

UNMAS reported there is equal access to employment for qualified women and men in survey and clearance teams in Western Sahara, east of the Berm, including for managerial level/supervisory positions. In 2019, 9% of operational roles in SafeLane Global (UNMAS's contractor) were held by women; at a managerial level, this fell to 7%. In SMACO, there is one woman at managerial level out of five positions.¹⁹

INFORMATION MANAGEMENT AND REPORTING

According to UNMAS, the Information Management System for Mine Action (IMSMA) database for Western Sahara, east of the Berm, improved as a result of an ongoing data audit initiated at the end of 2015.²⁰ The Geneva International Centre for Humanitarian Demining (GICHD) has also provided ongoing support to correct database errors, and an upgrade to the latest database software version, IMSMA Core, was scheduled to take place in August 2019.²¹ This did not occur. As at June 2020, the updating of standard operating procedures (SOPs) for information management and the gradual shift to IMSMA Core had been suspended because of COVID-19 lockdown.²²

PLANNING AND TASKING

In 2019, SMACO developed its strategy for mine action in Western Sahara, east of the Berm, covering 2019–23 in line with the newly published global UN Mine Action Strategy 2019–2023. UNMAS reported that, as at August 2020, a strategy for CMR clearance was in development.²³ There are no specific objectives related to CMR in the strategy for mine action in Western Sahara, east of the Berm, but SMACO has established the following general objectives in order to achieve a Western Sahara free of the impact of mines and ERW:

- to implement efficient and effective communication with national and international organisations by 2019.
- to establish an effective mechanism for data collection of accidents and victims which will be shared with partners according to the SMACO Data Protection Policy by 2019.
- to establish sustainable and constant funding of SMACO by 2020.
- to ensure availability of human resources to comprehensively manage mine action by 2020.
- to fully implement a professional management structure within SMACO by 2021.
- to create a discussion platform (think tank) for a national victim rights protection policy by 2022.
- to establish a national employment policy for mine action activities by 2023.²⁴

As at June 2020, it was not known if Western Sahara, east of the Berm, achieved its objectives for 2019. UNMAS reported only that there was no mine action work plan for 2019 or 2020 and that UNMAS Western Sahara mine action activities continued to be in support of MINURSO's mandate.²⁵

UNMAS and SMACO identify priorities for clearance of both minefields and cluster munition strikes east of the Berm in conjunction with MINURSO. Priorities are identified based on humanitarian needs for the safety and freedom of movement of local populations, while UNMAS Western Sahara facilitates the ceasefire and ensuring the safe passage of UN personnel.²⁶

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Local mine action standards were developed and finalised in 2016 by UNMAS, together with SMACO, and in coordination with mine action partners. A first annual review of the standards was completed in November 2018 with a review board consisting of representatives from UNMAS, SMACO, and all implementing partners. No significant changes were made, and UNMAS reported in June 2019 that translation of the standards into Arabic had been completed and shared with SMACO.²⁷

An external quality management system was in place from 2018 and implemented by UNMAS and SMACO to the east of the Berm.²⁸

OPERATORS

Table 2: Operational clearance capacities deployed in 2019²⁹

Operator	Manual teams	Total deminers*	Dog teams	Mechanical assets	Comments
SafeLane Global (for UNMAS Western Sahara)	2	24	0	0	Decrease by 50% from 2018
Totals	2	24	0	0	

* Excluding team leaders, medics, and drivers.

SafeLane Global (formerly Dynasafe MineTech Limited, DML) was the implementing operator for UNMAS Western Sahara, conducting survey and clearance in 2019. There was a decrease in overall operational capacity from 2018 due to a decrease in funding and because Norwegian People's Aid (NPA) had made the "difficult decision" to close down its programme, effective on 1 January 2019, after releasing the last known contaminated areas in Bir Lehlou province in August 2018.³⁰

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2019

A total of almost 1.59km² of CMR-contaminated area was released through clearance in 2019 with 923 submunitions destroyed.

SURVEY IN 2019

According to UNMAS, no non-technical survey or technical survey of CMR-contaminated area occurred in 2019 or 2018.³¹

CLEARANCE IN 2019

In 2019, a total of 1,589,492m² was released through clearance in Tifariti in the North region of Western Sahara, east of Berm with 923 submunitions found and destroyed.³² This is a huge decrease from the just over 4.8km² cleared in 2018, albeit with the destruction of only 833 submunitions.³³

Table 3: CMR clearance in 2019³⁴

Operator	Region	Area cleared (m ²)	Submunitions destroyed
SafeLane Global (for UNMAS Western Sahara)	Tifariti (North region)	1,589,492	923
Totals		1,589,492	923

No CMR were reported destroyed in spot tasks in 2019.³⁵ UNMAS stated that the reasons for the decrease in CMR clearance output in 2019 was the decrease in operational capacity following the withdrawal of NPA staff and a decrease in funding.³⁶

PROGRESS TOWARDS COMPLETION

Western Sahara is neither a State Party nor a signatory to the CCM and therefore does not have a specific clearance deadline under Article 4. However, the SADR submitted a voluntary CCM Article 7 transparency report to the UN in 2014, stating that: "By submitting its voluntary report, the SADR would like to reaffirm its commitment to a total ban on cluster munitions as well as its willingness to accede to the Convention on Cluster Munitions and be bound by its provisions".³⁷ The SADR has obligations under international human rights law to clear CMR as soon as possible.

Under Western Sahara's draft mine action strategic plan, all recorded cluster munition strike areas to the east of the Berm, outside of the buffer strip, were to be released by 2019.³⁸ UNMAS expected to complete clearance of all CMR contamination in the Northern Sector (Bir Lahlou, Mehaires, and Tifariti districts) east of the Berm by the end of 2018.³⁹ This did not happen, however, and in SMACO's new mine action strategy 2019–23, the vision is for Western Sahara

to be free of the impact of mines and ERW by 2023.⁴⁰ UNMAS Western Sahara needs to maintain its level of funding of \$3.265 million per year and to secure an additional \$2 million per year to clear all known mine and ERW contamination in the territory of Western Sahara, east of the Berm, and outside the buffer strip, restricted areas, and the Berm itself by this date.⁴¹

In 2019, with the loss of NPA as a key mine action implementer, along with the end of both German and Norwegian funding for clearance, the future of Western Sahara's mine action programme was uncertain. Additional resources and capacity, along with support to SMACO, need to be secured urgently. There was a massive decrease in clearance output from 2018 to 2019 in Western Sahara and UNMAS reported that as at June 2020, operations had been partially suspended due to the outbreak of COVID-19, putting the already unrealistic 2023 completion date even further out of reach.⁴²

- 1 A defensive wall (the Berm) was built during the conflict between the Royal Moroccan Armed Forces and the Popular Front for the Liberation of Saguia el Hamra and Rio de Oro (Polisario Front) forces, dividing control of the territory between Morocco on the west, and the Polisario Front on the east.
- 2 Email from Edwin Faigmane, Programme Officer, UNMAS, 13 August 2020.
- 3 Email from Robert Thompson, Operations and Quality Assurance Officer, UNMAS, 29 April 2019. The buffer strip is an area 5km wide, east of the Berm.
- 4 Email from Edwin Faigmane, UNMAS, 13 August 2020.
- 5 Ibid.
- 6 Email from El Hadji Mamadou Kebe, Programme Manager, NPA, 4 May 2019.
- 7 SADR Voluntary CCM Article 7 Report, dated 20 June 2014, Form F.
- 8 Email from Karl Greenwood, Chief of Operations, Action on Armed Violence/Mechem Western Sahara Programme, 18 June 2012.
- 9 Emails from Robert Thompson, UNMAS, 29 April 2019; Dandan Xu, UNMAS, 28 June 2019; and Graeme Abernethy, UNMAS, 1 March 2018.
- 10 Email from Edwin Faigmane, UNMAS, 13 August 2020.
- 11 Email from Robert Thompson, Operations and Quality Assurance Officer, UNMAS, 29 April 2019. The buffer strip is an area 5km wide, east of the Berm.
- 12 Emails from Virginie Auger, UNMAS, 15 March 2017; Sarah Holland, UNMAS, 23 May 2016; and Graeme Abernethy, UNMAS, 27 May 2016. The six areas were identified in a 2008 survey.
- 13 "Report of the Secretary-General on the situation concerning Western Sahara", UN doc. S/2017/307, 10 April 2017, p. 8.
- 14 Response to questionnaire by Sarah Holland, UNMAS, 24 February 2014, and email, 25 February 2014; and email from Edwin Faigmane, UNMAS, 6 August 2020.
- 15 Emails from Edwin Faigmane, UNMAS, 18 June and 6 August 2020.
- 16 Emails from Graeme Abernethy, UNMAS, 1 March and 5 May 2018.
- 17 Email from Edwin Faigmane, UNMAS, 18 June 2020.
- 18 Emails from El Hadji Mamadou Kebe, NPA, 4 May 2019 and 14 March 2018.
- 19 Email from Edwin Faigmane, UNMAS, 18 June 2020.
- 20 Emails from Graeme Abernethy, UNMAS, 1 March and 5 May 2018.
- 21 Email from Robert Thompson, UNMAS, 31 May 2019.
- 22 Email from Edwin Faigmane, UNMAS, 18 June 2020.
- 23 Email from Edwin Faigmane, UNMAS, 13 August 2020.
- 24 SMACO "Strategic Plan 2019–2023", at: bit.ly/38jaGm2; and email from Robert Thompson, UNMAS, 31 July 2019.
- 25 Email from Edwin Faigmane, UNMAS, 18 June 2020.
- 26 Emails from Graeme Abernethy, UNMAS, 1 March and 5 May 2018; and Edwin Faigmane, UNMAS, 6 August 2020.
- 27 Emails from Robert Thompson, UNMAS, 29 April 2019; and Dandan Xu, UNMAS, 28 June 2019.
- 28 Emails from Robert Thompson, UNMAS, 29 April 2019; and Edwin Faigmane, UNMAS, 28 July 2020.
- 29 Email from Edwin Faigmane, UNMAS, 13 August 2020.
- 30 Email from El Hadji Mamadou Kebe, NPA, 4 May 2019.
- 31 Emails from Robert Thompson, UNMAS, 29 April 2019; and from Edwin Faigmane, UNMAS, 13 August 2020.
- 32 Email from Edwin Faigmane, UNMAS, 13 August 2020.
- 33 Email from Robert Thompson, UNMAS, 29 April 2019.
- 34 Emails from Robert Thompson, UNMAS, 29 April 2019; Dandan Xu, UNMAS, 28 June 2019; and El Hadji Mamadou Kebe, NPA, 26 May 2019.
- 35 Email from Edwin Faigmane, UNMAS, 13 August 2020.
- 36 Ibid.
- 37 SADR Voluntary CCM Article 7 Report, Form F, 20 June 2014; and Cluster Munition Monitor, "Cluster Munition Ban Policy: Western Sahara", updated 12 August 2014.
- 38 Emails from Virginie Auger, UNMAS, 29 March 2017; and Graeme Abernethy, UNMAS, 31 March 2018.
- 39 Email from Graeme Abernethy, UNMAS, 1 March 2018.
- 40 SMACO "Strategic Plan 2019–2023", at: bit.ly/38jaGm2.
- 41 Email from Edwin Faigmane, UNMAS, 6 August 2020.
- 42 Email from Edwin Faigmane, UNMAS, 18 June 2020.



ANNEX 1:
ARTICLE 4 OF THE
CONVENTION ON
CLUSTER MUNITIONS

ARTICLE 4: CLEARANCE AND DESTRUCTION OF CLUSTER MUNITION REMNANTS AND RISK REDUCTION EDUCATION

1. Each State Party undertakes to clear and destroy, or ensure the clearance and destruction of, cluster munition remnants located in cluster munition contaminated areas under its jurisdiction or control, as follows:
 - (a) Where cluster munition remnants are located in areas under its jurisdiction or control at the date of entry into force of this Convention for that State Party, such clearance and destruction shall be completed as soon as possible but not later than ten years from that date;
 - (b) Where, after entry into force of this Convention for that State Party, cluster munitions have become cluster munition remnants located in areas under its jurisdiction or control, such clearance and destruction must be completed as soon as possible but not later than ten years after the end of the active hostilities during which such cluster munitions became cluster munition remnants; and
 - (c) Upon fulfilling either of its obligations set out in sub-paragraphs (a) and (b) of this paragraph, that State Party shall make a declaration of compliance to the next Meeting of States Parties.
 - (d) Clear and destroy all cluster munition remnants located in areas under its jurisdiction or control; and
 - (e) Conduct risk reduction education to ensure awareness among civilians living in or around cluster munition contaminated areas of the risks posed by such remnants.

2. In fulfilling its obligations under paragraph 1 of this Article, each State Party shall take the following measures as soon as possible, taking into consideration the provisions of Article 6 of this Convention regarding international cooperation and assistance:
 - (a) Survey, assess and record the threat posed by cluster munition remnants, making every effort to identify all cluster munition contaminated areas under its jurisdiction or control;
 - (b) Assess and prioritise needs in terms of marking, protection of civilians, clearance and destruction, and take steps to mobilise resources and develop a national plan to carry out these activities, building, where appropriate, upon existing structures, experiences and methodologies;
 - (c) Take all feasible steps to ensure that all cluster munition contaminated areas under its jurisdiction or control are perimeter-marked, monitored and protected by fencing or other means to ensure the effective exclusion of civilians. Warning signs based on methods of marking readily recognisable by the affected community should be utilised in the marking of suspected hazardous areas. Signs and other hazardous area boundary markers should, as far as possible, be visible, legible, durable and resistant to environmental effects and should clearly identify which side of the marked boundary is considered to be within the cluster munition contaminated areas and which side is considered to be safe;

3. In conducting the activities referred to in paragraph 2 of this Article, each State Party shall take into account international standards, including the International Mine Action Standards (IMAS).

4. This paragraph shall apply in cases in which cluster munitions have been used or abandoned by one State Party prior to entry into force of this Convention for that State Party and have become cluster munition remnants that are located in areas under the jurisdiction or control of another State Party at the time of entry into force of this Convention for the latter.
 - (a) In such cases, upon entry into force of this Convention for both States Parties, the former State Party is strongly encouraged to provide, inter alia, technical, financial, material or human resources assistance to the latter State Party, either bilaterally or through a mutually agreed third party, including through the United Nations system or other relevant organisations, to facilitate the marking, clearance and destruction of such cluster munition remnants.
 - (b) Such assistance shall include, where available, information on types and quantities of the cluster munitions used, precise locations of cluster munition strikes and areas in which cluster munition remnants are known to be located.

5. If a State Party believes that it will be unable to clear and destroy or ensure the clearance and destruction of all cluster munition remnants referred to in paragraph 1 of this Article within ten years of the entry into force of this Convention for that State Party, it may submit a request to a Meeting of States Parties or a Review Conference for an extension of the deadline for completing the clearance and destruction of such cluster munition remnants by a period of up to five years. The requested extension shall not exceed the number of years strictly necessary for that State Party to complete its obligations under paragraph 1 of this Article.

6. A request for an extension shall be submitted to a Meeting of States Parties or a Review Conference prior to the expiry of the time period referred to in paragraph 1 of this Article for that State Party. Each request shall be submitted a minimum of nine months prior to the Meeting of States Parties or Review Conference at which it is to be considered. Each request shall set out:
- (a) The duration of the proposed extension;
 - (b) A detailed explanation of the reasons for the proposed extension, including the financial and technical means available to and required by the State Party for the clearance and destruction of all cluster munition remnants during the proposed extension;
 - (c) The preparation of future work and the status of work already conducted under national clearance and demining programmes during the initial ten year period referred to in paragraph 1 of this Article and any subsequent extensions;
 - (d) The total area containing cluster munition remnants at the time of entry into force of this Convention for that State Party and any additional areas containing cluster munition remnants discovered after such entry into force;
 - (e) The total area containing cluster munition remnants cleared since entry into force of this Convention;
 - (f) The total area containing cluster munition remnants remaining to be cleared during the proposed extension;
 - (g) The circumstances that have impeded the ability of the State Party to destroy all cluster munition remnants located in areas under its jurisdiction or control during the initial ten year period referred to in paragraph 1 of this Article, and those that may impede this ability during the proposed extension;
 - (h) The humanitarian, social, economic and environmental implications of the proposed extension; and
 - (i) Any other information relevant to the request for the proposed extension.
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7. The Meeting of States Parties or the Review Conference shall, taking into consideration the factors referred to in paragraph 6 of this Article, including, inter alia, the quantities of cluster munition remnants reported, assess the request and decide by a majority of votes of States Parties present and voting whether to grant the request for an extension. The States Parties may decide to grant a shorter extension than that requested and may propose benchmarks for the extension, as appropriate.
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8. Such an extension may be renewed by a period of up to five years upon the submission of a new request, in accordance with paragraphs 5, 6 and 7 of this Article. In requesting a further extension a State Party shall submit relevant additional information on what has been undertaken during the previous extension granted pursuant to this Article.
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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

AIM	Abandoned Improvised Mines (Afghanistan)	LIS	Landmine Impact Survey
AP mine	Anti-personnel mine	MAG	Mines Advisory Group
APMBC	1997 Anti-Personnel Mine Ban Convention	MDD	Mine detection dog (team)
AV mine	Anti-vehicle mine	MoU	Memorandum of Understanding
AXO	Abandoned explosive ordnance	MRE	Mine risk education
BAC	Battle area clearance	MTT	Multi-task team
BiH	Bosnia and Herzegovina	NATO	North Atlantic Treaty Organization
CCM	2008 Convention on Cluster Munitions	NGO	Non-governmental organisation
CCW	Convention on Certain Conventional Weapons	NMAS	National Mines Action Standards
CHA	Confirmed hazardous area	NPA	Norwegian People's Aid
CMR	Cluster munition remnants	NSAG	Non-state armed group
CMRS	Cluster Munition Remnants Survey	NTS	Non-technical survey
DCA	DanChurch Aid	OAP	Oslo Action Plan
DDG	Danish Demining Group	OAS	Organization of American States
EDD	Explosive detection dog (team)	OSCE	Organization for Security and Co-operation in Europe
EO	Explosive ordnance	PPE	Personal protective equipment
EOD	Explosive ordnance disposal	QA	Quality assurance
EORE	Explosive ordnance risk education	QC	Quality control
ERW	Explosive remnants of war	QM	Quality management
EU	European Union	SHA	Suspected hazardous area
FSD	Swiss Foundation for Mine Action	SOP	Standing (or standard) operating procedure
GICHD	Geneva International Centre for Humanitarian Demining	TS	Technical survey
GIS	Geographic information system	TWG	Technical working group
HI	Humanity and Inclusion	UN	United Nations
ICRC	International Committee of the Red Cross	UNDP	United Nations Development Programme
IED	Improvised explosive device	UNICEF	United Nations Children's Fund
IMAS	International Mine Action Standards	UNMAS	United Nations Mine Action Service
IMSMA	Information Management System for Mine Action	UXO	Unexploded ordnance
IP	Implementing partner	VA	Victim assistance
ITF	International Trust Fund (ITF) Enhancing Human Security	VTF	Voluntary Trust Fund (United Nations)



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